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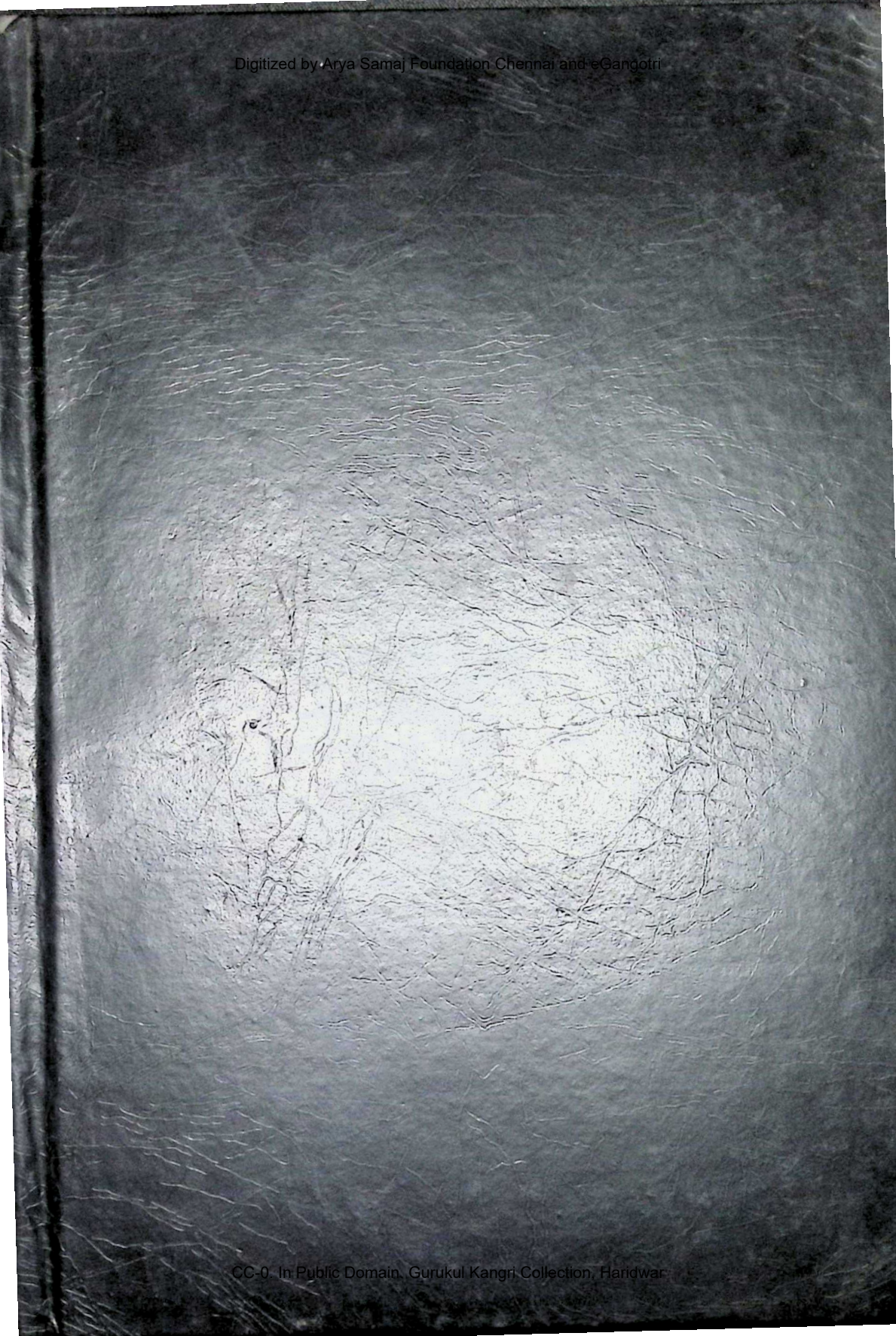

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STABILISATION AND ADJUSTMENT*

PAUL P. STREETEN

Director, World Development Institute Boston University
270 Bay State Road, Boston, Massachusetts 02215 (USA)

In September 1986 the International Institute for Labour Studies (IILS) devoted a number of its journal *Labour and Society* to the question of structural adjustment policies and stabilisation programmes as its contribution to the International Labour Organisation's efforts to encourage a dialogue on its social implications. The present article continues this discussion. Part of a much larger study which will be published in the IILS *Notes and Documents Series*, this article addresses the issue of stabilisation and adjustment.

Stabilisation policies are advocated by the International Monetary Fund (IMF), structural adjustments by the World Bank, though the distinction has become blurred since 1974, with the IMF giving longer-term loans and concerning itself with aspects of structural adjustment, and the World Bank including stabilisation among its balance-of-payments lending objectives. Stabilisation operates largely on demand, adjustment on supply. Stabilisation is a short-run policy, structural adjustment a long-run one. Stabilisation seeks to correct the balance of payments, structural adjustment also to accelerate, or at least maintain, steady growth and development. Stabilisation takes parameters (such as demand and supply responses) as given, structural adjustment aims at changing them. The relationship between the two is complex and controversial. Some maintain that stabilisation is a precondition for adjustment, others that long-term adjustment can be jeopardised by inappropriate stabilisation policies. Both the IMF and the World Bank lend money, and thereby contribute to financing deficits. Sometimes the debate is conducted between advocates of greater short-term austerity and greater short-term financing, instead of focusing on how to achieve long-term structural adjustment with the help of short- and long-term finance.

The question then arises, when is it appropriate to correct a balance-of-payments deficit, and when (and for how long) to finance it. Occasionally, both correcting and financing are lumped together as different kinds of adjustment, but since finance normally has to be repaid with interest, and

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either assists in, or conflicts with, fundamental adjustment, it is surely better to treat them separately. Plainly, temporary and reversible deficits are best financed, whereas lasting and irreversible ones should be, sooner or later, corrected. But equally plainly, it is not always easy to predict whether deficits are temporary or permanent, reversible or irreversible.

A second rule for finance, however, is not as an alternative to correction but as a method of easing it. Finance can be used to stretch the correction over a period, thus making it less painful and possibly reducing the secondary burden of the correction. Finance (like aid and an increase in oil revenue) can be used to facilitate structural adjestment, but it can also be used to perpetuate the status quo and avoid adjustment. The declared purpose of conditionality is to make lending an instrument of adjustment, instead of an escape from it.

The *first* question to raise on the IMF's stabilisation policies as applied to upper-tranche conditionality is when devaluation and monetary restrictions are effective in achieving the objective of correcting the balance of payments, or when they may be counter-productive: may devaluation not increase rather than reduce the deficit, and monetary restriction increase rather than reduce inflation?

The perverse effect of devaluation can be the result of the following forces. Export earnings (in terms of foreign currency) may fail to increase if the demand or the supply is inelastic. The value of exports in terms of domestic currency is, of course, bound to increase, but this increase may be less than the increase in the value of imports, if the demand for them is inelastic. (In terms of foreign currency, the reduction in the value of imports may be less than that in the value of exports.) If the trade deficit (in terms of domestic currency) widens, the impact of devaluation will be deflationary, not inflationary. This deflationary impact would be reinforced if the price rise consequent on devaluation were to reduce real wages and lead to a redistribution toward profits; for the propensity to save out of profits is higher than that out of wages.

In the face of a low demand elasticity for imports, a low foreign supply elasticity will mitigate the increase in the value of imports (in terms of domestic currency), as suppliers are unable to divert their supplies elsewhere, and therefore supply at lower prices (in terms of foreign currency).

The assumption of a low demand elasticity is realistic for countries that depend on imports that are inputs into their domestic production, including exports, and imports that consist of essential foodstuffs. Sometimes non-essential imports have already been eliminated by import restrictions. The existence or absence of such low elasticities is an empirical question. It might be said that, if elasticities are low, the answer lies in exchange rate *appreciation*. But it is possible to envisage situations in which both devaluation and appreciation increase the balance-of-payments deficit, though there is little evidence for this being important in the long-run in practice.

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There can also be a conflict between the short run, in which elasticities are low (or domestic prices are fixed and quantities do not increase by much), and the long run, in which they are higher.[1]

Similarly, raising interest rates and restricting the supply of money can have an inflationary rather than a disinflationary impact.[2] This would be the case if interest rates entered into the cost calculations of firms, particulardy through working capital, and these firms determined prices on a mark-up basis.

It has also been argued that devaluation can be contractionary *on the supply side*. The mechanism is through higher local currency costs of intermediate inputs, which are important in many developing countries, wage indexing where imports are important in the expenditure of wage earners (e.g. food), and through reduced credit to firms.[3]

Although the logical possibility of perverse results of devaluation and monetary restrictions cannot be denied, in practice they are likely to be short-run phenomena, and normal responses can be expected in the longer run. One conclusion is that countries embarking on this course should be supported by additional finance in the transition period to the longer run.

Even if devaluation increases supply of some primary export commodity, and raises the earnings of this sector, other countries exporting the same commodity will tend to follow, world supply will rise, the international price will fall, and the terms of trade for the exporters deteriorate. The answer to such overproduction lies in commodity agreements, not in competitive devaluations.

The problem that stabilisation is often intended to solve in excessive demand in relation to output, or excessive money creation in support of a budget deficit. Since the excess of imports over exports (the deficit in the balance of payments) is identical with the excess of investment over domestic savings plus the excess of government expenditure over revenue, equilibrium (when resources are fairly fully employed) requires a reduction in investment or in consumption (so that savings rise) and/or a reduction in government spending and/or a rise in taxation. The conventional methods of achieving this are (in the context of a growing economy) a reduction in the rate of growth of money and credit, a reduction of the budget deficit

[1]Paul Streeten: Elasticity optimism and pessimism in international trade, in *Economia Internazionle* (1954); Paul Streeten and Thomas Balogh: The inappropriateness of simple elasticity concepts in the theory of international trade and Exchange rates and national income, in *Banca Nazionale del Lavoro Quarterly Review* (Oct.-Dec. 1950); *Bulletin of the Oxford University Insiitute of Statistics*, Mar. and Apr. 1951. See also Paul Krugman and Lance Taylor: Contractionary effects of devalution, in *Journal of Development Economics* (1978).

[2]Paul Streeten and Thoms Balogh: A reconsideration of monetary policy, in *Bulletin of the Oxford University Institute of Statistics*, 4 (1957), 331–349.

[3]Sweder van Wijnbergen: *Exchange Rate Management and Stabilization Policies*, The World Bank (mimeographed).

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and, if expenditure switching is indicated, devaluation of the exchange rate. A combination of these measures aims at simultaneously reducing domestic demand for resources and switching it from traded to non-traded goods and services, thereby setting free resources for exports and reducing imports.

Excess demand is consistent with equilibrium in the market for non-tradables, or internal balance. Let us assume that this is the starting-point. A deficit in the current account balance of payments implies an excess demand for tradables (importables and exportables). If this is the case, a policy that reduces total expenditure can contribute to correcting the deficit, by reducing imports and making more goods available for export. But it also reduces domestic employment if the prices of non-tradables are rigid downwards. It follows that the correction in the balance of payments has been bought by unemployment at home, if the only measure adopted is directed at the contraction of demand.

If we aim at external and internal balance, two policy targets, we need two instruments: in addition to *reducing* expenditure, we have to *switch* expenditure from tradables to non-tradables. This is achieved by raising the prices of tradables relative to those of non-tradables. The normal method of doing this is a change in the exchange rate. This will increase the supply of tradables, by shifting resources from non-tradables to tradables, and it will reduce the domestic demand for tradables and raise it for non-tradables. Had we relied only on expenditure cuts, without expenditure switching, there would have been an excess supply of non-tradables, and an excess demand for tradables. The switching policy reduces both.

What would have happened had we relied only on expenditure switching, without expenditure reduction? Again, we assume that we start from an external deficit and internal balance. Initially, the prices of tradables rise relatively to those of non-tradables. But as demand for non-tradables rises, while their supply is reduced, their prices will rise (rigidity applies only to price reductions, not to price increases), and the incentive to switch will be eliminated. The deficit will not have been corrected.

It was shown above that devaluation can also be demand- and expenditure-reducing. By reducing the deficit, it reduces real incomes and real expenditure at home. To the extent that this is so, the expenditure-reducing policies can be relaxed. Analogously, expenditure-reducing policies can contribute to switching. Different lines of expenditure have different impacts on tradables and non-tradables, and therefore different tax increases will affect the composition of expenditure between tradables and non-tradables differently. If the result is less expenditure on tradables, the devaluation accompanying expenditure reduction can be smaller. But according to this analysis, the main impact of devaluation (expenditure switching) is on domestic activity and employment, while the main impact of expenditure reduction is on the balance of payments.

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If the initial situation is one of unemployment and excess capacity, less or no expenditure reduction is needed. Switching by itself may restore external and internal balance. If the initial situation is one of excess domestic demand and inflationary pressures, less or no switching will be needed. Expenditure reduction by itself may restore both external and internal balance. But normally, both reduction and switching, by a combination of variations in the exchange rate, tax rates, credit policy, etc., will be needed. Each of these policies will have effects on both reduction and switching.

The analysis that is based on the distinction between tradables and non-tradables is open to some criticisms. First, in order to lump them into a single category, it must be assumed that the relative prices of exports and imports do not change. The assumption of constant terms of trade is valid for small economies, but not for large ones. In large countries, and in small countries that are significant suppliers of an export commodity, devaluation will normally lead to a deterioration of the terms of trade, but it need not. If the terms of trade change, it is necessary to distinguish between exportables, importables and non-tradables. Secondly, domestic services become tradables if they are bought by tourists who spend foreign exchange, or by multinational corporations, or are inputs into tradables, or otherwise accrue to foreigners. Thirdly, this last point is likely to be more important precisely in small countries, to which otherwise the distinction between tradables and non-tradables would apply.

The IMF "package", often expressed in the "Letter of intent" issued by the country after consultation with the Fund, usually contains some of all the following elements:

(1) Credit restrictions by the monetary authorities, especially of borrowing by the government and public enterprises.
(2) Reduction in the budget deficit, which can, in principle, be done by:
   (*a*) raising taxes;
   (*b*) raising the prices of the products and services of public enterprises that contribute to revenue;
   (*c*) cutting government expenditure on defence;
   (*d*) cutting government expenditure on public consumption;
   (*e*) cutting government expenditure on investment.
   Sometimes there is agreement on specific public expenditure programmes that are to be cut.
(3) Devaluation or depreciation of the currency, either in a series of small steps or in big step.
(4) Liberalisation of international trade and capital movements, and of some domestic sectors, previously controlled.

If a country runs into a deficit in its balance of payments and has exhausted ways of financing it, or considers finance inappropriate, it is clear that it has to correct the deficit. This in turn is bound to imply some

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cuts in expenditure relative to output. So much is beyond dispute. If, in addition, long-term productive capacity is to be increased, or at least not to be reduced, the cut should not fall on productive investment. The only area left then is a cut in consumption, or non-productive investment. or defence. Many developing countries have embarked on large, non-productive prestige projects, sometimes urged on them by the export interests of the industralised countries: changing the location of the capital city, monuments, conference centres, airports, ultra-modern clinics, resort hotels, oversize industrial plants. But these, like defence expenditures, are dear to the people in power and politically difficult to cut. Cuts in consumption, as we shall see later, that fall on the poor and other vulnerable groups should be avoided, and cuts in the consumption of the urban middle class, students, the military, or the bureaucracy can be politically difficult. There is often a fundamental eonflict between economic and social priorities and political priorities in expenditure cuts. Social priorities indicate the poorest and most vulnerable groups should be protected. But these groups are weak and inarticulate. Political priorities indicate that the most powerful and articulate groups' interests and projects should be spared.

Even if some of the specific conditions imposed by the IMF appear paricularly onerous, they must be compared with the absence of access to the Fund. This clearly can be even worse. Foreign exchange reserves would be depleted, access to foreign credit cut off, perhaps capital would leave the country, and the costs of the adjustments in such a crisis are then likely to be much greater than the costs of the Fund conditionality. But this does not mean that there may not be alternatives to both, the costs of which would be less than either.

The problem is to bring about this primary sacrifice with the minimum burden in secondary costs. The secondary costs depend upon the means adopted for the correction (and the reaction of the foreign governments). If, for example, the excess of imports over exports is eliminated by a general depression of demand, with the creation of excess capacity and unemployment in all sectors of the economy, which spread to other countries and further reduce exports and the level of activity, the secondary costs can vastly exceed the primary costs. On the other hand, if the deficit is eliminated by the imposition of a tariff that turns the terms of trade in favour of the country, and if previous tariffs were below the optimum tariff level, or if the tariff replaces quantitative restrictions from which foreigners derived scarcity rents, the secondary costs can be negative, reducing the primary costs of adjustment. But minimising primary costs in the short run may be at the expense of raising them in the long run, and vice versa. Thus a simple reduction of imports by the imposition of quotas may prevent the redeployment of factors of production for long-term stability and growth. On the other hand, a degree of excess capacity and general unemployment may be the necessary condition of such longer-term redeployment.

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So far, we have discussed at some length the first question: when is the IMF's package effective? Closely related to the first question of effectiveness in achieving correction is a *second* question on which controversy exists. Some critics have said that the IMF package (containing frequently, as we have seen, such measures as devaluation, monetary and credit restrictions, trade liberalisation and budget cuts) may be effective, but only if accompanied by other measures, such as the creation of export credit facilities, improvements in transport, in marketing, in the availability of incentive goods to producers and inputs into their production, aad of new technology. It may also be necessary to change procedures and institutions, such as wage bargaining, parastatal marketing authorities, credit institutions, state-owned enterprises, etc. Not all these follow inevitably upon the correct exchange rate and price policies. Some of these are non-price measures, and some require action in the public sector. It is argued by the critics that if these other measures, including non-price measures, are adopted, devaluation may not be necessary, or may be necessary only to a smaller extent; if they are not adopted, a nominal devaluation cannot achieve an effective devaluation, because it leads only to inflationary price movements, and it could even be counter-productive. It is one of the main arguments for structural adjustment policies that these aim at supporting the short-term stabilisation measures by other measures, including non-price measures, which alone make the stabilisation measures effective and sustainable.

Additional controversy exists over the means used to bring correction about. The IMF has advocated measures that rely on a few macro-economic variables, such as the exchange rate, the interest rate, and the budget deficit, while its critics have wanted to keep options open that rely on discretionary controls, physical restrictions, and central planning. In order to remove this dispute from ideology, it should concentrate on the respective merits of different measures to bring about correction at minimum costs to policy objectives such as high levels of employment, income, and economic development which are, according to the Fund's Articles of Agreement, among the "primary objectives of economic policy".

The balance-of-payments position to be achieved by corrective policies, or what is called "external balance", should be defined free from value judgements other than the need to balance the current account plus non-induced capital inflows, minus repayment of loans. The amount of autonomous capital borrowing, the level of unemployment, the balance between the private and public sector, and the amount of discretionary controls should not be the subject of purview, except in so far as they contribute or detract from a viable balance-of-payments position.

A viable balance-of-payments position can be defined in two ways. It can mean either a position in which receipts from visible and invisible exports plus net autonomous capital inflows equal foreign expenditure plus

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debt service, on a sustainable basis. Or it can embrace several additional conditions, the valuation of which is controversial. Among these may be a reduced public sector, removal of "Price distortions" and direct controls, full employment, reduced autonomous foreign borrowing, higher growth rates, etc. To define "equilibrium" in this second way amounts, however, to what Stevenson called "a persuasive definition".[4] Specific valuations, instead of being expressed explicitly, are, as it were, smuggled into the discourse by way of the definition of "equilibrium". The *third* criticism of the Fund's conditionality advanced by some critics (after the possible ineffectiveness of the policies either as such, or without complementary non-price or public sector measures) is, therefore, that it is not only interested in the *results* of correcting the balance of payments and providing the conditions for the repayment of its loans, but also urges too narrowly only certain *means* to this end, in particular reliance on market forces, which the critics regard as ideological, or at least as irrelevant doctrinal or value judgements, sometimes inappropriately transferred from an ideal model to the real world, sometimes derived from different weights attached to different objectives, and sometimes derived from a different casual economic analysis. Some critics say that the measures advocated by the Fund are proper as first-best solutions in a near-perfect world, but inappropriate in an *n*th-best world.

The criticism is directed against an alleged confusion between policy targets and policy instruments. "By making performance depend not on the attainment of policy targets but on the behaviour of policy instruments, the Fund turns instruments into targets, which is inefficient and divisive."[5]

It is *inefficient* because there are no rigid links between targets and instruments. Targets should be fixed, instruments flexible. The target may be hit by alternative instruments, though the Fund-prescribed instruments fail, and Fund instruments may meet requirements, without hitting the target. There can be credit expansion, or a rise in the budget deficit, while the payments balance on current account improves, or the credit or fiscal restrictions may be achieved, while the balance deteriorates. It is *divisive* because countries may reject the instruments laid down by the Fund and fail to get access to the Fund, though their policies would be capable of hitting the target. If access to the Fund is delayed because of ideological or political differences, excess damage may be suffered in the period of delay.

The emphasis on targets, goals or objectives against means or instruments is quite distinct from the hardness or softness of the Fund's stance.

[4]Charles L. Stevenson: *Ethics and Language*, Yale University Press, 1960.

[5]John Spraos: IMF conditionality—A better way, in *Banca Nazionale del Lavoro Quarterly Review*, 151 (1984). See also Frances Stewart: Alternative conditionality, in *Development*, 1 (1984).

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Insistence on targets, advocated by Spraos and Stewart, can amount to a harder stance than insistence on instruments.

A *fourth* criticism has been that the Fund recommendations apply to conditions of market-clearing equilibrium, whereas in many countries these conditions are not met and the consequences of the recommended policies can be perverse. Consider, for example, a recommended devaluation, whose purpose it is to raise the prices of cash crops, in order to stimulate production and supply. If there is rationing of consumer goods, successful price controls, and successful suppression of black markets, so that the farmers have earnings without anything to spend them on, a situation not uncommon in some African countries, the response to higher prices for their crops may well be a reduction in supply. Unless farmers wish to accumulate money balances in the expectation of greater availability in the future, the supply elasticity of cash crops is a minus one. As prices are raised supply is reduced proportionately, so that total earnings are just enough to buy the available goods. They can simultaneously increase either the production of food for their own consumption or their leisure. If moreover, the crops are exported and a certain fixed amount of the export earnings is allocated by the government to urban groups, raising crop prices can lead to cumulative contraction. As the reduced export earnings resulting from the initial price increase will reduce even further the imported consumer goods available to farmers, they will further reduce their production and withdraw into the subsistence economy. But it does not follow that reducing supply prices is then the correct answer.[6] This chain of events depends crucially upon prices of the rationed goods not rising, and black markets being successfully eliminated.

A *fifth* criticism sometimes voiced is that the IMF recommendations attempt to solve structural problems, such as an oil price increase, or a permanent deterioration in the terms of trade for some other reason, by monetary restrictions, thereby inflicting unnecessary unemployment, underutilisation of capacity and forgone production, as well as being counterproductive by depriving firms of the means to invest in the new deposits and related industries, in oil substitutes and in conservation. The situation is like that of the peasants in one of Charles Lamb's essays, who do not know a better way to roast a pig then to burn down the house (and the pig may also be burnt, instead of roasted, in the process). The monetary restriction would be the correct solution if the imbalance had arisen from excess demand and consequential inflation, but not if its causes are different.

A *sixth* criticism that is often voiced is that the Fund concentrates on reducing demand instead of increasing supply, on cutting imports rather than expanding exports. The following chart shows that for the period

[6]Paul Collier: Peasant supply response in rationed economies, in *Word Development* (forthcoming).

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1981-85 many countries, instead of raising exports and reducing imports, reduced both imports and exports. But at least part of the reduced export earnings must be attributed to exogeneously, not policy-induced, deterioration in the terms of trade. A cut in demand can be relied upon to reduce imports, though often it reduces demand for domestic goods too and causes unemployment, unused capacity and wasted resources. It is almost always possible to achieve stabilisation and correction in the balance of payments by policies that reduce income, demand, and employment sufficiently, without reallocating resources to investment and exports, in other words, without fundamental adjustment. The criticism is that the IMF has advocated this kind of stabilisation without adjustment".

The distinction between the impact on demand and supply is, of course, blurred. Most measures operating on demand will also affect supply, and any increase in supply will generate extra incomes which will give rise to added demand. But growing economies have a deflationary or disinflationary engine buit into their system. It is the result of progressive tax rates, rising company profits out of which the savings propensity is high, and a redistribution toward the better-off who tend to save a higher proportion of their income. In the absence of highly inflationary expectations, a dollar's worth of extra supply will, therefore, generate less than a dollar's worth of extra demand. Moreover, supply measures aiming at higher capacity utilisation and more investment can be combined with measures that constrain consumption.

It may, in some cases, be difficult to distinguish between unemployment caused by a general deficiency of demand from that caused by the effort to redeploy labour and capital from one sector to another. The excess demand for labour in the growing sector does not show up in terms of added employment to the short run, because the workers have not yet been recruited, only the dismissed labour in the shrinking sector is registered.

The Fund's reply to this type of criticism is that high levels of activity, employment and growth can be sustained only if inflation is controlled, price distortions eliminated, and balance-of-payments disequilibria corrected. Otherwise short-run objectives of increased supply are bought at the expense of less production, employment and growth later. In so far as the Fund's conditionality has acknowledged the need to raise supply (as well as reduce demand), its measures are confined to raising price incentives to producers, and particularly to eliminate overvalued exchange rates and too-low interest rates, leading again to the third criticism, viz. a limited range of options, based on a specific and controversial doctrine about the casual relations between instruments and results.

The IMF also argues that measures acting on supply take longer to show their impact, and that demand restrictions are often necessary conditions for the expansion of supply. It is true, the argument goes, that these restrictions involve reductions in consumption, investment and employ-

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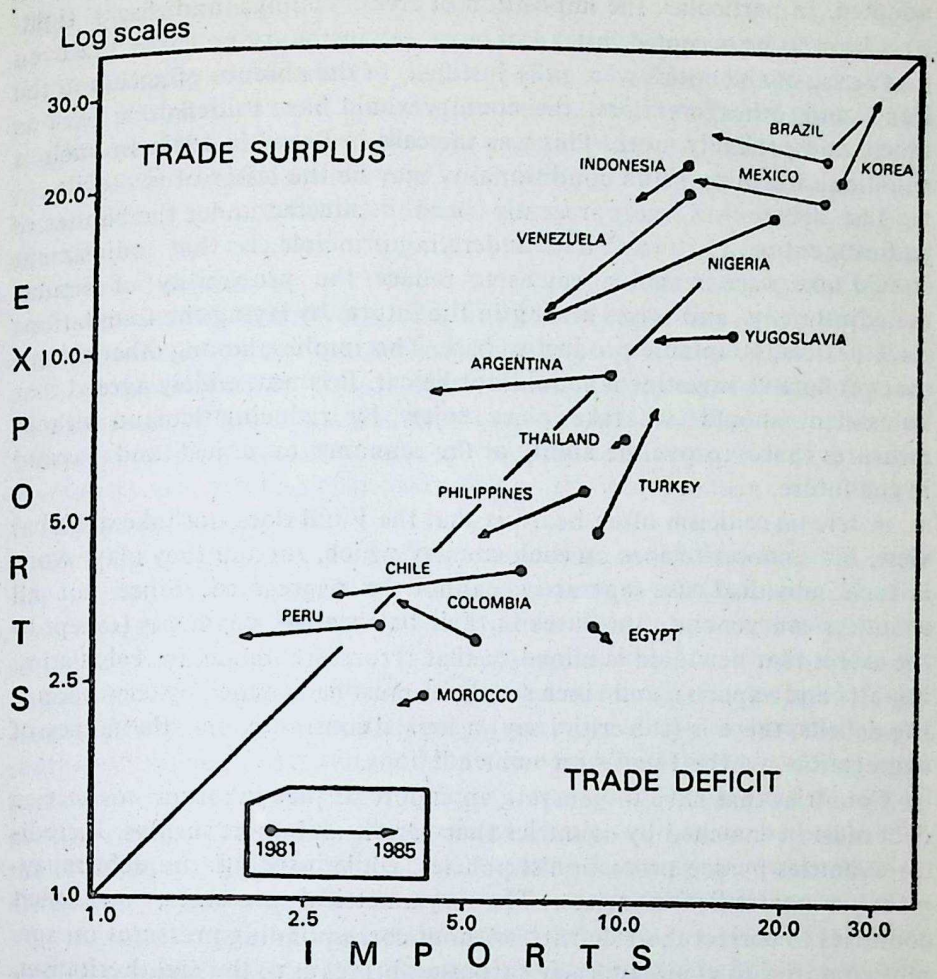
Merchandise trade in 16 indebted countries: 1985 compared with 1981 (billion dollars)



Note: Points on the diagonal line correspond to a balanced trade: exports (f.o.b.) equal imports (c.i.f.), based on customs retums.

Source: G. A. Comia: "Adjustment policies 1980–85", in G. A. Comia, Richard Jolly and Frances Stewart (eds.): *Adjustment with a human face* (Oxford, Claredon Press, 1987), p. 64.

ment, but these costs would be even higher if no restraint were exercised and the price distortions were permitted to establish strong vested interests against their removal. This would be worse for long-term growth than the short-term austerity prescribed by the Fund. Finally, the Fund argues that the improvements in the efficiency of the allocation of resources provide the basis for faster growth in the long run.

Against this view of the Fund that short-term sacrifices have to be accepted for the sake of long-term gains, the critics maintain, on the contrary, that the short-term benefits of additional finance are bought at the

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expense of reduced long-term flexibility of the range of policies that may be adopted. In particular, the imposition of credit ceilings and fiscal tightness have to be accepted instead of more expansionary policies. But even if the case of the critics were fully justified, in the absence of access to the Fund and other creditors, the country would have to deflate at least as much, and probably more. This was the case in Brazil in 1981. In such a situation, accepting Fund conditionality may be the lesser of two evils.

The debate has more recently been conducted under the banner of "adjustment with growth". The underlying principle is that adjustment should take place in such a way as to reduce the probability of similar maladjustments and crises arising in the future, by laying the foundations for a flexible, adaptable productive base. This implies, among other things, that productive investment should not be cut. It is now widely agreed that adjustment should not take place solely by reducing demand without measures that improve the ability of the economy to adjust and expand in the future.

A *seventh* criticism often heard is that the Fund does not take a global view, but imposes recipes on each country which, though they may work in each individual case separately, cannot be aggregated. Since not all countries can generate surpluses in their balances of payments (except to the extent that new gold is mined or that errors are made in calculating imports and exports), and since surpluses must be matched by corresponding deficits, there is (the critics say) a logical contradiction—the fallacy of aggregation—in the Fund's recommendations.

Countries that have to generate an export surplus in order to service debt must be matched by countries that permit an import surplus. If creditor countries pursue protectionist policies, while insisting on debt repayment, a contradiction arises. The asymmetrical pressures on deficit countries to correct their deficits, without corresponding pressures on surplus countries to eliminate their surpluses, brings us to the eighth criticism, discussed below.

If several countries are induced to devalue, total exports will not increase by much, but the terms of trade for the group of countries will tend to deteriorate. This is particularly likely for primary product exports. The weight of this criticism will depend upon the number of countries to which Fund conditionality applies, and their degree of interdependence. If they are few and the interdependence is weak, global effects can be ignored.

Quite apart from the fact that not all countries can generate surpluses, there is the question whether the Fund's conditions should pay attention to the global economic environment. Should restrictive conditions be relaxed in a world recession, and tightened up in world inflationary conditions? This would seem sensible if we believe that the Fund should move toward global economic management. But it can give rise to the

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impression of inconsistency if borrowers find that their requests at different times are met with very different conditions.

An *eighth* criticism is that the pressures to adjust are asymmetrical. In the pure theory of adjustment on the gold standard (which abstracts from power relationships and which goes back at least to David Hume), the surplus countries inflate (or reflate or raise absorption), while the deficit countries deflate (or disinflate or disabsorb), in this way restoring equilibrium. But in the present institutional set-up the penalties for a surplus country for not reflating or inflating are much weaker than the penalties for a deficit country for not deflating. A deficit country which runs out of exchange reserves may have great difficulties in borrowing, while a surplus country can always continue to lend. The only exception to this is a deficit country whose currency is a reserve currency (such as the United States), because its deficits are matched by other countries holding their money balances in the form of loans to the deficit country. The result of the asymmetry is a strong deflationary bias to the world system with all the hardships that this entails.

But the admonition to surplus countries to expand demand, raise imports and reduce exports is subject to important qualifications. At this time the largest surplus country is Japan, with a current account surplus of the order of US$ 80 billion. Is it really sensible to ask the Japanese to import more, to reduce their savings or redirect their investment to the domestic economy? In a capital-hungry world we should be grateful to any source of savings and not call for a rise in consumption; and domestic investment in Japan, apart from housing which may be justified on social grounds, may well yield lower returns than elsewhere in the world. On the other hand, it is also wrong to permit the Japanese surplus to exert a deflationary pressure on other countries. The answer clearly lies in constructing an institutional mechanism that would recycle the Japanese surpluses, now largely invested in United States short-term treasury bills and bonds, for the benefit of the capital-hungry developing countries, as long-term loans or equity investment. This should be done, in the first place, through an international investment trust that would channel the funds to private capital users or local development finance corporations that would on-lend the money to private entrepreneurs. Such arrangements are obviously in everybody's interest. Japan would benefit, for its excess savings would find safe and profitable investments, perhaps guaranteed against inflation and exchange rate depreciations. The developing countries would benefit, because they could draw on an additional source of capital. And the other industrialised countries, particularly the United States with its large deficit with Japan would benefit, for some of the money would be spent on their capital goods in the multilateral pattern of trade, and would raise their income and employment. The world economy would not be subject to the deflationary impact of the surpluses. The current account surpluses of

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Japan, the Federal Republic of Germany, Taiwan (China), and any other capital surplus country, the now idle industrial capacity and manpower of the OECD countries, and the vast, grossly underutilised labour force of the developing countries would be brought together in a massive, global, positive-sum game. If desired, an interest-subsidisation scheme, financed by government contributions, could be grafted on to the recycling scheme, for the benefit of the poorest and lowest income countries. Some people call on Japan to use its current account surpluses to give more aid. But aid-giving should be related to income per head, not to the state of the balance of payments, while long-term lending on commercial terms should be related to the balance of payments. What is needed is an exercise in the institutional imagination to create the financial intermediaries and a degree of international co-operation.

Such a scheme does not depend on the continuation of the Japanese current account surpluses. Some observers believe that these are transient, largely the result of over-adjustments to the oil price increases in the seventies, and will soon disappear. But they are likely to be replaced by surpluses from other countries, to which the same recycling mechanism could be applied.

Some arguments against devaluation and restrictions have certainly been mistaken. Thus, it has often been said that a devaluation would be inflationary. But *any* way of reducing a balance-of-payments deficit, that is, any way of permitting less output to be absorbed by domestic agents, will tend to be inflationary unless the same amount of purchasing power is withdrawn. Direct import controls, for example, are also inflationary since the money no longer spent on imports will be spent on domestic alternatives, unless it is voluntarily or involuntarily saved. There are circumstances in which these alternative sectors have excess capacity and in which the non-availability of imports will lead to higher savings, but the case for this would have to be shown to exist; it does not follow from one way of reducing the deficit in preference to another.

The links between stabilisation, structural adjustment and financing deficits are therefore complex. First there can be a conflict between the short-term effects of the expenditure-reducing and expenditure-switching policies for stabilisation on the one hand, and the long-term effects of the supply-raising policies for adjustment on the other. Any adjustment has an inter-temporal aspect. Present adjustments may make future adjustments either easier or more difficult. Or the short-term adjustment process may create vested interests that make future adjustments politically more difficult. Secondly, there can be a conflict between the means employed for stabilisation, according to whether they stabilise rapidly with greater damage to long-term adjustment, or more slowly with smaller damage. This will be largely a question of the impact of devaluation and monetary and budgetary restrictions on incentives to invest, which in turn depends on the impact on

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business confidence, rather than on a careful weighing of expected returns against interest rates. Devaluation and monetary and fiscal restrictions can discourage investment and reduce supply in the long run, or they can encourage it. Thirdly, there is the question of the quality and composition of any given level of investment. At higher inflationary pressures investment demand and labour utilisation may be high, but inefficient firms may survive and crowd out more efficient firms. At lower levels of inflation the total of investment and employment may be smaller, but their composition and quality, and therefore their efficiency, better. For example, at inflationary levels with overvalued exchange rates and trade restrictions firms will survive that are high-cost producers by proper economic standards, and will deprive lower-cost firms of resources for expansion. There can be too much import substitution and too few exports, too much large-scale production and too few small-scale firms, too much manufacturing and too little agriculture, too many foreign firms and too few domestic ones.

Structural adjustment is usually thought of in terms of a change in the trade regime, or in the balance between industry and agriculture, or in terms of debt-servicing capacity. But structural adjustment can also be from an inegalitarian strategy of concentrated growth to a more egalitarian, anti-poverty strategy, and the question arises as to the impact of stabilisation on income distribution and the poor. A *ninth* criticism is that measures approved by the IMF, and frequently adopted by developing countries, hit the poor particularly hard, or at least do not protect adequately vulnerable groups, such as the poor, the disabled, the old, or women or children. The Fund's defence is that it is not for an international organisation to tell sovereign governments how they should treat the poor, and that the decision to put the burden on them is made by sovereign governments, not by the Fund.

The Fund's attitude to the impact of adjustment policies on the poor has recently softened. In his address to ECOSOC on 4 July 1986, Mr. de Larosière, the Managing Director of the IMF, said:

> ... it is hard to visualise how a viable external position can be achieved if large segments of the workforce lack the vocational skills—or even worse, the basic nutritional and health standards—to produce goods that are competitive in world markets....
>
> ... But the fact that adjustment need not conflict with growth and protection of basic human needs does not mean either that the latter automatically result from the former.... Similarly, adjustment that pays attention to the health, nutritional and educational requirements of the most vulnerable groups is going to protect the human condition better than adjustment that ignores them.

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> This means, in turn, that authorities will have to be concerned not only with *if* they close the fiscal deficit but also with *how* they do so. For example, safeguarding human needs may imply that employment in overstaffed and loss-making public enterprises or defence spending be reduced in preference to cutting an accelerated immunisation and health care programme for children. Similarly, safeguarding human needs may imply that credit flows be managed so that small-scale producers are not crowded out by large enterprises and the public sector. The forms of adjustment that are most conducive to growth and to protection of human needs will not emerge by accident. They have to be encouraged by an appropriate set of incentives and policies. They will also require political courage.

This is an encouraging new departure by the IMF. In considering the impact of adjustment policies on the poor, three things should be clear to start with. First, that any form of macro-economic adjustment is bound to affect the distribution of incomes, if only because its purpose is to raise incomes in some sectors and reduce them in others. It can therefore not be excluded from any full analysis of the effects of adjustment policies. Secondly, what should be of main concern is the impact of adjustment on the poor, not on relative income distribution. If some groups benefit without anybody being hurt, this should be no cause for complaint, although in fact conflict over the division of benefits can be as serious as conflicts over gains and losses. Thirdly, it should be clear that any cut in living standards, imposed by the need to correct a balance-of-payments deficit, is bound to hit some of the poorer sections (though not necessarily the poorest of those groups, meeting whose needs contributes to human capital formation), if only because the poor are so numerous and average income is so low in low-income countries. This is particularly so if productive investment that contributes to economic growth and to safeguarding living standards in the future is to be protected. These reductions in living standards of the poor are likely to be more serious in countries with low average incomes per head, partly because incomes are already low, and even across-the-board cuts will drive many below the poverty line, and partly because these countries are liable to be less flexible and responsive to shocks and therefore have to deflate by more for any given correction in the balance of payments.

Some of the austerity in the Fund's much bewailed austerity programmes is therefore inevitable. In particular, employed wage earners in the organised sector, including those in public enterprises, not normally among the poorest, may have to suffer. The question is whether stabilisation policies inflict an undue share of the burden upon the poor, for instance by a sudden elimination of food subsidies, or by cuts in social services, or by price increases of essentials.

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A study by Norman Hicks and Anne Kubisch suggests that for the period of the seventies and early eighties, on the average, social expenditures were less vulnerable than other types of government expenditure, when total expenditure was reduced. Vulnerability is defined as a percentage reduction higher than the average. It could, of course, be argued that when cuts are made in other sectors, raising unemployment, social expenditure should be increased. And, indeed, some countries such as Brazil, Indonesia and the Philippines increased social sector expenditure despite total cutbacks. On the other hand, other countries such as Guyana, the Sudan and Turkey reduced social expenditure by more than the average. But the authors conclude "the empirical evidence suggests that when governments in developing countries implement austerity programmes, they do not apply across-the-board reductions in expenditure. Generally, capital expenditures are reduced more than recurrent expenditures. Within both capital and current budgets, the social and administration/defence sectors appear to be relatively well protected, while infrastructure and production absorb disproportionately larger reductions"[7]. But it should be noted that social expenditure only catches a part of the impact on the poor. For example, cuts in food subsidies are counted as reductions in the productive sector. The question as to whether austerity programmes inflict an undue burden on the poor has to be answered with a view of the alternative. Any appraisal of stabilisation policies must compare then with a specified, hypothetical alternative situation, not with the situation when the deficit permitted living above the country's means. Comparisons with past performance are therefore irrelevant. But the counterfactual for comparison can be either the probable situation without Fund assistance, or Fund assistance with Fund conditionality, or Fund assistance with different conditionality packages. While devaluation and monetary and fiscal restriction will hit the poor, had inflation continued at the old level, and no adjustment occurred, higher prices of food and other necessities would also have harmed the poor. They have no assets whose value goes up with inflation, and their money incomes tend to lag behind price increases, especially of the goods mainly consumed by them, such as food. And if the corrections had then to be brought about by the imposition of import restrictions or violent deflation, the poor would suffer most. It should be expected that in a regime in which income, wealth and power are unequally distributed, the poor suffer, whatever policies are pursued. On the other hand, in countries where the poor have political power, such as the Malays in Malaysia, stabilisation programmes in the seventies have protected the poor against damage, through food subsidies, exemption from credit restrictions, and other measures.

[7]Norman Hicks and Anne Kubisch: Cutting government expenditure in LDCs, in *Finance and Development*, 3 (1984), 39.

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Inflation is sometimes called "the cruellest tax" on the poor, and it is therefore not self-evident that the contraction imposed by the Fund hits the poor more than continuing inflation would. As far as the United States is concerned, recent work by Blinder and Blank has shown that the poor suffer more under unemployment and recession than they do under inflation, and that it is unemployment that is the "cruellest tax".[8] These results cannot be immediately transferred to the developing countries, but a similar approach could be used there.

It is not inevitable that stabilisation policies should hit the poor exclusivey. Adjustment normally consists of two parts: expenditure reduction and expenditure switching. It is true that expenditure-reduction, in a low-income country, will tend to hit the poor sections, unless they are specifically protected or compensated. But expenditure switching need not harm them. The real-location from domestic sectors to tradables will tend to raise incomes in these sectors. If traded goods are mainly agricultural goods and if many poor are in agriculture, they may benefit from the reallocation. (On the other hand, some non-tradables, such as construction and government services, are labour-intensive, and a switch to the production of tradables may reduce employment and income of the poor.) The analysis of the impact of balance-of-payments adjustments on income distribution and poverty is sometimes conducted in terms of a two-sector neoclassical model, in which tradables have different factor proportions from non-tradables. A switch to tradables then benefits the owners of the factor of production that is used more intensively in the production of tradables, not only in the tradables sector but in both sectors. It also benefits the consumers of non-tradables because their relative prices fall. But the difficulty with this type of analysis is that incomes of people do not always follow the functional lines of capital and labour, and the two-sector model is of limited use. Within each sector there may be, for example, an informal, labour-intensive subsector, in which producers own a bit of capital but operate on a small scale, and a formal, capital-intensive, large-scale subsector, with wage employment. As expenditure is switched to the tradables sector, workers in the formal sector may benefit but the informal subsector poor may be harmed. If there is substantial mobility between the subsectors, this would not matter, for people would move from the informal into the formal sector. But if mobility is limited, the distinction is crucial. It has already been argued that more important then the impact of stabilisation policies on income distribution is the impact on absolute poverty.

The higher prices of imports of necessities caused by the devaluation could be offset by subsidies, targeted toward the poor. The restrictions on

[8]Alan S. Blinder and Rebecca M. Blank: *Macroeconomics, Income Distribution and Poverty*, NBER Working Paper No. 1567.

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investment could be on luxury housing and durable consumer goods for the upper class. In fact, however, many stabilisation policies have hit the poor hard. The price rises that follow devaluation and the removal of controls frequently affect particularly the necessities consumed by the poor. Reductions in government expenditures are often on labour-intensive public works, food subsidies and social services. High interest rates tend to encourage concentration of wealth if lenders are richer than borrowers (but this is not always so), though lower rates combined with credit rationing often do the same. Monetary and fiscal restrictions raise unemployment and reduce the bargaining power of unskilled labour. In all cases it is the poor who suffer more than they would have suffered in a situation of repressed inflation, where demand for labour is high, the prices of necessities are controlled, and social services are more generous.

Although we do not have a rigorous model by which to assess the impact of adjustment policies on vulnerable groups, it is possible to lay down certain guide-lines. First, maintain a floor for minimum nutrition, health and education levels, and do not permit cuts in expenditure to affect these. Second, restructure production within the productive sectors—industry, agriculture, services and foreign trade—so that the producers in the small-scale informal sectors are not discriminated against but are made to complement the organised sector (manufacturing components or spare parts, conducting repair, providing ancillary services, etc.), and give them access to credit, domestic markets and sources of supply. Third, restructure the social services—education, health, water and sanitation—so that the vulnerable groups are not deprived of minimum services. (When the United Kingdom adjusted to an austere war economy, nutritional levels actually improved.) And fourth, provide international support for these types of adjustment, both financial and technical assistance, and particularly ease debt service conditions, so as to permit the flexibility and adaptability such programmes call for.

A difficultly with reducing more broad-based welfare programmes to more "targeted" ones is always that savings in government revenue are bought at the expense of leaving out some of the poor. "Leakages" can occur at both ends: excess coverage means that some non-poor benefit, but reduced coverage means that some poor do not benefit. The case for erring on the side of excess coverage is that this also raises the taxable capacity of the non-poor, so that at least some expenditure can be recovered, say by a tax on tobacco which helps to finance food subsidies.

A *tenth* criticism relates to the question of the speed and timing of the adjustment. The Fund has been charged with imposing shock treatment on situations that require time. Clearly, the question at issue here is the cause of the maladjustment. If it is excess demand or a mal-alignment of the prices of domestic and traded goods, a sudden shock treatment is appropriate. This avoids speculation against the currency and the growth

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of vested interests. But if we are concerned with structural adjustments, what is called for is investment in alternative capacity, and for this to yield output takes time. Financing a deficit for the interim period is a correct response. It is also easier to adjust in the context of a growing economy, inevitably slowly, then suddenly in a static situation. A very sudden removal of controls in a low-income economy with little flexibility can be highly disruptive and inflict excessive sacrifices, particularly on vulnerable groups.

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BARRIERS TO U.S. TRADE*

FAYE DUCHIN, GLENN-MARIE LANGE AND KARIM NAUPHAL

Institute for Economic Analysis, New York University
269, Mercer Street, New York, NY 10003

> [T]he case for free trade is currently more in doubt than at any time since the 1817 publication of Ricardo's *Principles of Political Economy* . . . . [The new models of international trade] call into doubt the extent to which actual trade can be explained by comparative advantage; they also open the possibility that government intervention in trade . . . may under some circumstances be in the national interest after all.
>
> (Krugman, 1987)

> The "visions" of the future produced by STA, MITI, NIRA [the Japanese Science and Technology Agency, Ministry of International Trade and Industry, and National Institute for Research Advancement] and numerous other government and private sources do not pretend to be accurate predictions, nor do they commit companies to inflexible plans. They chart the broad direction of advance for the economy and for technology and give companies sufficient confidence to make their own long-term investments in research, development, software, equipment and training.
>
> (Freeman, 1987, p. 89)

From Free Trade to Fair Trade

The unprecedentedly large volume of international trade in recent years has been governed not only by comparative cost advantages but also by various government policies including mechanisms intended to directly protect and promote domestic production. The General Agreement on Tariffs and Trade (GATT) has operated for the several decades of its existence under the assumption that the international division of labour is, or rather should be, the result of free trade in competitive world markets and remains committed to the negotiation of international reductions in explicit trade barriers. The official U. S. position still advocates free trade which, in freely competitive markets, can be expected to promote international price competition favoring relatively low-cost producers thus resulting in an optimal, self-adjusting international division of labour.

There is increasing recognition of the inadequacy of the free trade model largely prompted in this country by attempts to explain the huge balance of payments deficit. Even economic theorists now acknowledge

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that because of increasing returns to scale and so-called externalities, free trade may lead to a demonstrably less than optimal allocation of resources which could be improved by certain interventions (Krugman, 1987). While such abstract proofs do not always correspond with realities, skepticism about free trade is reinforced by recent empirical research which has shown that even in the absence of an explicit trade strategy, the unorchestrated action of assorted institutions in a modern economy assure that certain economic activities will be favored over others in ways that may powerfully influence their international competitiveness (Nelson, 1984).

The initial GATT signatories were all market economies; but at the present time, even the USSR and China have requested admission and such centrally managed economies as Czechoslovakia, Hungary, Poland, Rumania, and Cuba are already members. Many other member countries rely on private initiative to fulfill more or less co-ordinated national industrial, technology, and trade strategies. Japan is surely the most striking example; but governments within the increasingly integrated European Community (all internal trade barriers are to be eliminated by 1992) and many of the developing countries also try to use their trade strategies to help promote a long-term economic vision. In implicit recognition of all of these facts, discussions of international trade both in the U.S. and within GATT now aim for "fair trade" rather than "free trade." Advocacy of fair trade appears to be compatible with various assumptions about market structure or public/private sector relationships and has the pragmatic objective of simply promoting bargaining among actual and pending GATT members (over 100 countries) to eliminate perceived bilateral imbalances in protection through tariff and non-tariff barriers.

There is an extensive international literature on bilateral protection, and the first objective of this paper is to assess the overall fairness of international trade from the point of view of the United States. The paper provides a systematic description of the nature and extent of the explicit barriers faced by our exports and those we impose on our imports. While previous descriptions of barriers to international trade have focused on individual commodities and/or regions in the case-study tradition, this paper brings together the many pieces of the picture affecting the 1987 U.S. merchandise trade bills of imports and exports while maintaining both sectoral and trading partner detail. This work is presented in the following two sections. Negotiating for protection reciprocity alone cannot be an adequate basis for American trade strategy, discussed in the final section, but the analysis of these barriers is the necessary first step to which we now turn.

Forms of Trade Protection

Since the late 1970's there has been a sharp increase in protectionist

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sentiment in the Western industrialized countries, mainly the U.S., Canada, and the EEC, as a reaction to increased penetration of their domestic markets by Japan and the NICs, tougher competition for their exports, and higher unemployment. Tariffs and other measures have been concentrated in similar sectors in all developed countries—agriculture, textiles and apparel, footwear, leather products, steel, machine tools, automobiles, and electronics—although the nature and degree of assistance provided to domestic producers varies considerably.

The centrally planned economies manage all aspects of production and trade with the stringency of control varying from Hungary at one extreme to the USSR at the other: while it proved sometimes problematic to isolate specific barriers, the volume of U.S. trade with these countries is relatively small. More important in terms of volume is U.S. trade with Japan whose industrial strategies and trade strategies are also highly interrelated. In this case we have tried to identify the instances of explicit trade barriers. Even in market-driven economies, monopolies, cartels, and other market structures may also affect trade flows through the direct manipulation of production quantities and unit prices. These practices are included here as barriers to trade when the control is exercised by governments. Mineral fuels are subjected to perhaps the most extensive controls, mainly licensing and government monopoly (Nogues, 1986, p. 19), but these controls had minimal effects on prices and quantities traded in 1987.

The increased reliance of all countries on non-tariff barriers (NTBs) has resulted in the proliferation of dozens of new forms: the nine major categories of trade barriers considered in this study are itemized in Table 1. A general description of the use of these barriers is given in this section, and the applicability to U.S. imports and exports is taken up in the following section.

It has been estimated that tariffs on raw materials and manufactured goods now average under 5% among industrialized countries—2.8% for Japan, about 4.5% for the U.S. and the EEC, and 7% for Canada. The fairly low average tariff rate obscures wide differences in sectoral protection which increases with the stage of processing from raw materials through manufactured goods. Tariffs for agriculture have not been reduced much in recent years and still average between 10% and 25%. While the U.S. General System of Preferences (GSP) in principle grants developing countries reduced duties on their exports, the volume covered by the GSP is in fact small because of the exclusion of important commodities—agricultural products, textiles and apparel, footwear, glass products, consumer electronics, and watches, among others—the exclusion of OPEC countries and the "graduation" of the Asian NICs, Singapore, Taiwan, Korea, and Hong Kong, from the GSP. Developing countries apply much higher tariffs to their imports than the industrialized coun-

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tries, commonly in the range of 30% and sometimes as high as 100%. Hong Kong, Singapore, and some other countries are exceptions and impose practically no tariffs.

TABLE 1

CLASSIFICATION OF BARRIERS TO INTERNATIONAL TRADE IN MERCHANDISE

1. Tariffs and other import charges	Tariffs, surtaxes, variable levies and other import duties
2. Quantitative restrictions	Bans, embargoes, quotas on production, imports and exports; voluntary export restraint arrangements
3. Subsidies	Export subsidies, direct payments, tied-aid credit, dumping; production subsidies to import-competing sectors including subsidized inputs, taxes, loans, marketing and transportation subsidies; R & D support
4. Licensing	Restrictive or preferential export and import licensing practices
5. Standards, testing and certification	Discriminatory standards, regional rather than international product standards, refusal of firm's self-certification of conformity to standards
6. Counter-trade and offsets	State trading, foreign government-mandated barter, counter-purchase or technology and production transfers as an export sale condition
7. Government procurement	Closed bidding and strong governmental "buy national" policies
8. Lack of intellectual property protection	Piracy of copyrighted work, inadequate patent protection, insufficient enforcement of laws
9. Other barriers	Controlled exchange rates, preshipment inspections, custom barriers, discriminatory taxes, domestic content requirement

While tariffs remain in effect on most commodities throughout the world, non-tariff barriers characterize the "new protectionism". Among industrialized countries, only Japan, which started out with high NTB coverage, has reduced use of explicit non-tariff barriers in the 1980's. It is estimated that over the period 1981 to 1986, the value of imports covered by the barriers which directly restrict trade flows—quantitative restraints (quotas, import prohibition, voluntary export restrictions), variable levies, and nonautomatic licensing—increased by 18% in the EEC, 21% in Canada, and 23% in the U.S. (World Bank, 1987 p. 143). The use of NTBs by developing countries has always been high relative to the industrialized countries though here, too, Hong Kong and Singapore are notable exceptions.

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All governments provide some direct or indirect assistance to domestic industries such as subsidized inputs, technical assistance, loans, research and development support, tax incentives, export credits, tied-aid assistance, and marketing assistance. U.S. government agencies also routinely provide sector-specific programs for agriculture, textiles and apparel, footwear, steel, and automobiles (Morici and Megna, 1983). However, U.S. subsidies (as a per cent of GDP) rank lowest among the industrialized nations in these practices and Japan's, at least several years ago, second lowest (Hufbauer, 1983). The amounts of subsidy are much higher in Europe, particularly the EEC: government ownership is more extensive, and subsidies are used to actively foster high technology sectors and protect traditional ones. Developing countries also use subsidies extensively, often through government ownership and monopoly sometimes justified as the temporary protection of infant industries. Agriculture is treated differently in industrialized and developing economies with very heavy subsidies in all industrialized countries and low or negative subsidies in most developing countries with the exception of the NICs.

Restriction of government procurement to domestically produced commodities is a widespread practice. The U.S. government procurement code for federal purchases is generally limited to military purchases, high technology products, transportation vehicles, textiles and office equipment. Government procurement is more extensive in other industrialized countries, in part because of the greater degree of public ownership. Government procurement policies are most extensive in developing countries, especially those countries with industrial development programs to foster the growth of particular industries.

Standards, labelling, or certification regulations can be uncommonly complex or frankly discriminatory. Particularly restrictive regulations of these types are imposed on agricultural imports by Japan and, to a lesser degree, by all European countries and by the U.S. They are also used by the industrialized countries to restrict trade among themselves in a broad range of manufactured goods such as pharmaceuticals and motor vehicles but are not as important in their trade with developing countries.

Countertrade and offset requirements and the failure to protect "intellectual property rights" are most characteristic of the developing countries and the centrally planned economies. Such non-tariff barriers are disappearing among the few EEC nations that have used them. Most developing countries have controlled exchange rates and apply domestic content requirements to many manufactured produets. Domestic content requirements are also imposed on certain goods by the industrialized countries.

Trade Barriers Facing U.S. Commodity Imports and Exports

U.S. trade flows in 1987 by commodity and by trading partner are given in Tables 2 and 3 (see also Tables D1–D4) which show that the

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TABLE 2
VALUE OF U.S. COMMODITY IMPORTS IN 1987 BY SECTOR AND BY REGION OF ORIGIN

(millions of dollars)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	1950	345	256	887	846	554	4507	3583	1815	46	875	316	16032
2. Energy raw materials	5432	38	2230	73	537	339	4651	3693	1703	13359	973	404	33704
3. Other raw materials	1394	8	282	168	64	285	411	351	22	8	315	98	3376
4. Processed materials	11021	4734	4711	9316	2166	3250	6939	8741	2265	3163	966	1704	58712
5. Textile and apparel	595	1173	1126	4589	822	141	2022	20343	4671	208	344	3783	40056
6. Light manufacturing	14061	1612	1996	3428	1433	160	323	5737	983	6	81	461	29966
7. Chemical products	2384	2090	3896	3567	1105	604	508	1048	130	107	183	380	15780
8. Machinery	3940	1101	9499	5307	2578	159	118	6426	216	6	283	225	39592
9. Motor vehicles	23232	32461	12932	2095	2417	63	28	6234	9	0	16	45	79405
10. Other transportation	1833	1265	2043	2290	265	76	5	1173	9	0	151	14	9020
11. Electronic products	2903	23651	2754	1805	537	49	161	20084	2835	3	300	313	56056
12. Other manufacturing	2760	9661	4296	5321	2266	180	461	12815	1741	12	1500	1283	42377
13. Total	71510	88073	46025	38850	15042	5866	20139	90235	16406	16924	5973	9033	424082

Source: (U.S. Department of Commerce, 1988)

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TABLE 3
VALUE OF U.S. COMMODITY EXPORTS IN 1987 BY SECTOR AND BY REGION OF DESTINATION

(million of dollars)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	1238	3852	1279	3086	454	132	1030	3528	696	1214	706	1440	18985
2. Energy raw materials	880	654	140	1178	135	6	45	655	4	60	32	51	3847
3. Other raw materials	492	309	105	342	73	40	54	230	49	7	60	8	1765
4. Processed materials	5535	5654	1978	4564	924	594	2739	5778	737	1477	579	356	31093
5. Textile and apparel	712	322	344	506	111	87	1071	825	96	216	89	77	4501
6. Light manufacturing	3310	3094	1446	1642	232	507	1026	2214	321	288	158	446	14731
7. Chemical products	3721	3410	2310	5146	948	1091	2729	5197	1079	474	266	1210	27867
8. Machinery	8542	1737	3303	3891	1220	1300	2904	5959	1063	1443	594	794	32710
9. Motor vehicles	16457	257	523	432	370	191	721	1829	67	773	108	31	20747
10. Other transportation	1985	2677	3698	3858	1497	1292	692	3107	963	1574	1781	537	23971
11. Electronic products	5963	3390	6766	6079	1610	1352	1303	8474	2810	533	584	372	39490
12. Other manufacturing	11051	2886	3963	3986	1497	996	2030	4368	770	816	725	399	33171
13. Total	59691	28248	25861	34716	9077	7594	16350	42169	6660	8881	5688	5726	252865

Source: (U.S. Department of Commerce, 1988)

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majority of U.S. trade—79% of the value of U.S. imports and 76% of exports—is with Canada, Japan, the European Economic Community and the newly industrializing countries. Motor vehicles, processed materials, electronics, and the residual manufacturing category account for almost half the value of U.S. imports while the inflow of non-energy raw materials, transportation equipment other than automobiles, chemical products and agricultural products is relatively small. Electronics, machinery, processed materials, chemical products, and the residual manufacturing category account for most of the value of our exports.

The pertinent barriers to trade (numbered 1 through 9 as in Table 1) associated with these trade flows are shown in Tables 4 and 5 for U.S. imports

TABLE 4
BARRIERS IMPOSED BY THE U.S. ON COMMODITY IMPORTS IN 1987 BY SECTOR AND BY REGION

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs
1 Agricultural Products	1 2 3 5						1 2 3 5	1 2 3 5	1 2 3 5			
2 Energy Raw Materials	4		4				4	4	4	4		
3 Other Raw Materials	1											
4 Processed Materials	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7	1 2 3 7		1 2 3 4 6 7
5 Textile and Apparel		1 2 3 7	1 3 7	1 3 7			1 2 3 7	1 2 3 7	1 2 3 7			1 2 3 4 6 7
6 Light Manufacturing	1 2 9	1 2 9	1 2 9	1 2 9	1 2 9			1 2 9				
7 Chemical Products	1 5	1 5	1 5	1 5	1 5			1 5				
8 Machinery	3 7	2 3 7	2 3 7	3 7	2 3 7			2 3 7				
9 Motor Vehicles	3 7 9	1 2 3 5 7 9	1 3 5 7 9	1 3 5 7 9	1 3 5 7 9			1 3 5 7 9				
10 Other Transportation	1 3 5 7 9	1 2 3 5 7 9	1 3 5 7 9	1 3 5 7 9				1 3 5 7 9				
11 Electronic Products	1 3 7	1 2 3 7	1 3 7	1 3 7				1 2 3 7	1 3 7			
12 Other Manufacturing	1 3 7	1 3 7	1 3 7	1 3 7	1 3 7			1 3 7	1 3 7		1 3 7	1 2 3 4 6 7

Notes: (a) The numbers in each box correspond to the trade barriers (1–9) identified in Table 1. All empty boxes correspond to trade flows of less than a billion dollars' worth.
(b) Insignificant levels of tariffs and NTBs (e.g. low subsidies and non-binding quantitative restrictions) are not recorded.

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TABLE 5

BARRIERS FACING U.S. COMMODITY EXPORTS IN 1987 BY SECTOR AND BY REGION

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs
1 Agricultural Products	1 2 3 4	1 2 3 5 7	1 2 3 5 9	1 2 3 5 6			1 4 9	1 2 3 4 6 9		2 3 4 9		1 2 3 4 6 7 9
2 Energy Raw Materials				6 9								
3 Other Raw Materials												
4 Processed Materials	1 6	1 3 7	1 3 7	1 2 3 7			1 4 6 8 9	1 2 3 4 6 8 9		2 4 5 8		
5 Textile and Apparel							1 2 4 9					
6 Light Manufacturing	1 5	1 8	1 3 7	1 3 7			1 4 7 8 9	1 3 6 7 8 9				
7 Chemical Products	1 3 8	1 5 8 9	1 3	1 3		1 8	1 4 8 9	1 3 4 8 9	1 4 5 8 9			1 2 6 7 8 9
8 Machinery	1 7	3 5 7	3 7	2 3 7 9	1 5 6 7	1 3 5 6 7	1 4 7 9	1 3 4 7 9	1 3 4 8 9	1 2 6 9		
9 Motor Vehicles	1 7							1 3 4 7 8 9				
10 Other Transportation	1 3 7	3 5 7 9	1 3 7	1 3 7	1 7	1 3 6 7		1 3 4 7 9		1 2 5 6 9	1 2 5 6 9	
11 Electronic Products	1 7 9	3 5 7 9	1 3 5 7	1 2 3 4 5 7	1 3 4 5 7 9	1 3 4 6 8	1 4 7 9	1 2 3 4 5 6 7 8 9	1 2 4 8 9			
12 Other Manufacturing	1 7	3 5 7	3 5 7	2 3 4 7 8	1 7 8 9		1 4 8 9	1 2 3 4 7 8 9				

Notes: (a) The numbers in each box correspond to the trade barriers (1–9) identified in Table 1. All empty boxes correspond to trade flows of less than a billion dollar's worth.

(b) Insignificant levels of tariffs and NTBs (e.g. low subsidies and non-binding quantitative restrictions) are not recorded.

and exports, respectively[1]. While it is not practical to individually document each figure appearing in these tables, all methods and sources are described in Appendices A-C. At the level of aggregation employed in this study, it turns out that every entry (of more than a billion dollars' worth) in both tables is subject to at least one and typically several barriers to trade.

Barriers placed by the U.S. on potential imports are intended to promote domestic production by either limiting the quantity of imports or raising the effective unit price. The success of these barriers, and of

[1]The rest of this discussion is concerned only with those flows of more than a billion dollars.

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barriers to U.S. exports, should be assessed by *computing what the trade flows would have been, based on comparative costs, in the absence of such obstacles, and comparing those potential flows with their actual levels.* There is at the present time no operational model of the world economy with which such a computation could credibly be carried out. Instead, the combined effect of these barriers in constraining the quantity of each trade flow was estimated, based on judgments given in the literature, as high, moderately high, moderate, moderately low, or low. These judgments were then weighted by the dollar amount of each actual flow and aggregated to estimate the distribution, from high to low, of constraints faced by the entire import and export bills of goods. The result is shown in Figure 1.

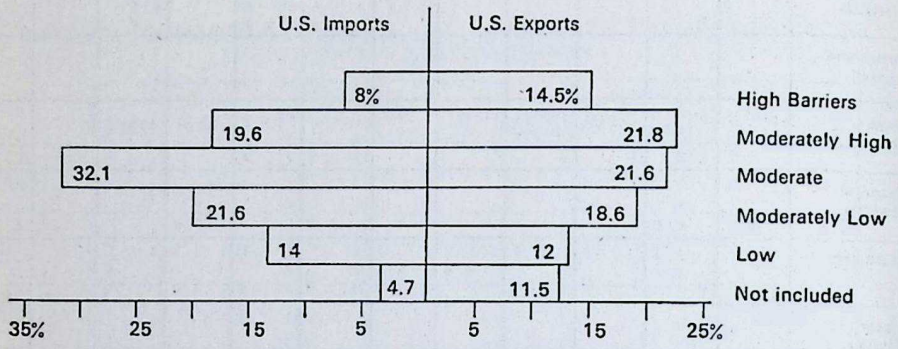

Fig. 1 Severity of Trade Barriers Faced by U.S. Commodity Imports and Exports in 1987.

Note: Each bar shows the percentage by value of the import (export) bill of goods subjected to high through low barriers. The portion "not included" is the aggregate value of the individual flows of under a billion dollars.

Based on these rough measures, U.S. exports appear to face more intensive trade barriers than the U.S. imposes on imports. About two-thirds of U.S. imports are faced with moderate to low barriers compared to about half the exports, and about 36% of U.S. exports face moderately high to high barriers compared to 28% of the imports. Some of the detail underlying Figure 1 is given in Tables D5-D8 of Appendix D. Inspection of these tables shows a fair amount of reciprocity in the nominal protectionism between the U.S. and Japan, the NICs, and Canada. Both regions comprising the European Economic Community (EEC1 and EEC2), however, restrict U.S. exports more than U.S. protects against imports from these regions.

The NICs, the smaller Asian and EEC economies (Other Asia and EEC2), and Japan impose the highest restrictions on U.S. exports. Imports from Japan and the NICs generally face more restrictions than those from other regions with about 45% of these imports subject to moderately high or high barriers, primarily voluntary export restraints on Japanese

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motor vehicles and quotas on textiles and machine tools from both regions. Imports from EEC2 face more restrictions than EEC1 (England and Germany) because a much larger volume of the exports to the U.S. from EEC2 are of highly restricted processed materials (mainly steel). Canadian exports face relatively low protection in U.S. markets, and Canada in turn imposes the lowest restrictions on U.S. exports. Imports from and exports to the Centrally Planned Economies are small, in part because they are heavily restricted.

The overall reciprocity that exists at the regional level naturally does not hold at the sectoral level. Production of agricultural goods and processed materials is protected throughout the world, but the U.S. is somewhat less restrictive of agricultural imports and more of processed materials, mainly steel, than other regions. U.S. agricultural and electronics exports face the heaviest trade barriers of all commodity classifications, followed by transportation equipment other than autos, machinery, and processed materials. Motor vehicles, textiles, and light manufacturing exports face low barriers in the relatively few countries to which we export these commodities, in contrast to the fairly high protection these sectors usually encounter in international trade. U.S. exports of chemical products face low barriers in all regions. Electronics accounts for 16% of the value of all U.S. exports, and U.S. electronics exports face moderately high or high trade barriers in most regions. By contrast, U.S. imports of these products, which amount to 13% of the value of imports, and subject to at most moderate barriers applied to our major suppliers, Japan and the NICs, and even lower barriers are applied to other regions.

Textiles and apparel are the most highly restricted of U.S. imports. Motor vehicles face two extremes—40% of motor vehicle imports are from Japan and are subjected to moderately high barriers while 30% are imported from Canada with very low restrictions. Raw materials are among the least protected sectors in the U.S.

From Fair Trade to Trade Strategy

It is clear that the U.S. contends with a wide range of barriers to international trade affecting exchanges of virtually all commodities with virtually all trading partners. While there appears to be rough bi-lateral reciprocity between us and our trading partners regarding the severity of trade barriers, American exports face more protection than is imposed on U.S. imports. This is especially true of exchanges between the U.S. and the EEC, and, to a lesser degree, the NICs. Within the context of GATT, the U.S. should no doubt press for removal of specific barriers to our exports, but reliance on this sort of reciprocity is likely to prove of limited long-term benefit as the case of Japan illustrates. The preceding analysis shows that our large trade deficit with Japan cannot be explained by their

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use of such barriers as impediments to free trade, nor is it likely to be reversed by this type of negotiation alone.

It is widely acknowledged that Japan has succeeded over the past few decades in shifting from traditional to extremely sophisticated sectors through coordinated industrial, technology and trade strategies. One of the important but often overlooked characteristics of Japanese economic strategy is the importance accorded both to the logic of technological interdependence among sectors of the economy and to the internal logic of technological change over time horizons of several decades. Sectors are often targeted for support because of the anticipated future importance of their physical output for other sectors. Sectors whose output enters into current trade are protected for a variety of tactical reasons, as in other countries. The new element is the fostering of technological infrastructure in selected "infant industries" long before specific products enter into the world trade. By the time this infrastructure is in place, protection is generally no longer necessary as the specific products are already competitive. Because of the time lag, subsidies of such industries would not show up in a static analysis like the one reported in this paper.[1] This has been the general pattern in electronics, fiber optics, supercomputers, and telecommunication products. These technological achievements make it plausible to envisage an internationally competitive Japanese aircraft industry by the early 21st century. Such "spillovers" are too important to be considered economic "externalities"—that is, external to an economic analysis—which has been the standard practice of trade theorists.

The content of long-term technological strategies starts with the Japanese approach to technological forecasting. The Science and Technology Agency co-ordinates the projections of some 4000 academic, industrial, and government experts as to the most important science and technology objectives to be achieved over the next thirty years (Freeman, 1987, p. 56). While no other country has been nearly as systematic in the formulation of scenarios about future technological systems, this approach is finally being acknowledged as an important element in Japanese commercial success and will be increasingly copied by the European Community, by developing countries, and hopefully by the United States. Americans are said to have little sense of history; a different challenge will be the imagination and pragmatism of our sense of the future.

The analysis leads to several conclusions. First, if GATT is to play an active role in promoting fairness in international trade in the future, its deliberations about the fairness of current trade barriers will need to be informed by scenarios about the likely future international division of

[1]Note that protection of infant industries in the developing economies *would* be captured in this analysis because they typically compete with sectors that are already well-established in other countries and are already widely traded.

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labour. This view might lead to bargaining about subsidies to industries whose output is not yet entering world trade.

Second, we need to acknowledge that trade strategies cannot be formulated separately from industrial and technologies strategies. Scenarios describing such strategies need to be the subject of public debate. A subset of economists could be put to productive work analyzing the requirements and implications of each scenario as a basis for public and private decision-making. The analysis of engineering databases within a dynamic input-output model of the economy will make these assessments possible. We already have this capability, in the research stage, in the United States, but the Japanese are moving with determination toward its large-seale implementation. This is an ideal project for international collaboration and in any case is not a research area in which we can afford to abstain.

Appendix A
METHOD OF ANALYSIS

Coverage of the entire bills of commodity imports and exports required the development of regional and commodity classification schemes as well as a taxonomy of the various barriers to trade. Individual trade flows (U.S. Department of Commerce, 1988) were then tabulated simultaneously by region of origin or destination and by commodity and assigned one or more of the trade barriers.

Trade flows were described in terms of twelve major commodity groups shown in Appendix B. This classification was chosen because it was sufficiently aggregated to provide a useful overview while still exhibiting enough homogeneity within each category so that a distinctive set of trade regimes could be associated with each commodity flow.

The regional classification, also described in Appendix B, combines trading partners into twelve groups based on several criteria, notably geographic proximity, similarity of protection barriers, similarity of stage of economic development, and composition of trade with the U.S. Canada and Japan were each treated separately because of the large volume and unique characteristics of their trade with the U.S., Great Britain and West Germany, also major trade partners, were combined because of their simlarities on these criteria. Middle East and African oil producing countries were likewise combined because of similar economic characteristics, notably the overwhelming importance of petroleum exports in their trade with the U.S. The newly industrializing countries (NICs) have been defined to include not only the Asian NICs but also Mexico and Brazil since these two countries resemble the Asian NICs more than they resemble other Latin American countries in terms of economic structure, protection of their domestic markets, and their trade with the U.S.

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Nine major categories of barriers to trade were identified and their applicability to U.S. imports and exports was assessed based on the sources given in Appendix C.

We have already attempted to quantify the impact to each instance of a trade barrier and also to add up the effects of barriers used in combination and weight the composite barrier by the relative importance of the associated trade flow in the overall bills of imports and exports. While the definition of such formal index numbers (here or elsewhere) is arbitrary, we report a rough ranking of the degree of overall protection applied to U.S. imports and exports, in terms of five categories ranging from low to high.

In addition to the effects on the commodity directly targeted by the nominal barrier, it is clear that economic effects of barriers spread both upstream and downstream throughout the economy. For example, U.S. imports and exports of steel have both faced considerable direct protection. Subsidies to the domestic steel industry may also indirectly benefit the industry's suppliers while tariffs on imported steel may indirectly penalize major users of steel such as the motor vehicles industry. One framework for computing "effective" rates of sectoral protection is described in the literature (Corden, 1966, 1985; Jones, 1971). We have not attempted to go beyond the description of nominal barriers in this paper.

Appendix B
SECTORAL AND REGIONAL CLASSIFICATIONS

TABLE B1

CLASSIFICATION OF COMMODITIES

IEA code	Description of Sector	BEA code
1.	AGRICULTURAL PRODUCTS	
	Livestock and livestock products	1
	Other agricultural products	2
	Forestry and fishery products	3
2.	ENERGY RAW MATERIALS	
	Coal mining	7
	Crude petroleum and natural gas	8
3.	OTHER RAW MATERIALS	
	Iron and ferroalloy ores mining	5
	Nonferrous metal ores mining	6
	Stone and clay mining and quarrying	9
	Chemical and fertilizer mineral mining	10
4.	PROCESSED MATERIALS	
	Food and kindred products	14
	Tobacco manufactures	15
	Petroleum refining and allied industries	31
	Rubber and miscellaneous plastic products	32
	Primary iron and steel manufacuring	37
	Primary Nonferrous metals manufacturing	38

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TABLE B1 (cont.)

IEA code	Description of Sector	BEA code
5.	TEXTILE, APPAREL AND LEATHER PRODUCTS	
	Broad and narrow fabrics, yarn and thread mills	16
	Miscellaneous textile goods and floor coverings	17
	Apparel	18
	Miscellaneous fabricated textile products	19
	Leather tanning and finishing	33
	Footwear and other leather products	34
6.	LIGHT MANUFACTURING	
	Lumber and wood products	20
	Wood containers	21
	Household furniture	22
	Other furniture and fixtures	23
	Paper and allied products except containers	24
	Paperboard containers and boxes	25
	Printing and publishing	26
	Glass and glass products	35
	Stone and clay products	36
7.	CHEMICAL PRODUCTS	
	Chemicals and selected chemical products	27
	Plastic and synthetic products	28
	Drugs, cleaning and toilet preparations	29
	Paints and allied products	30
8.	MACHINERY	
	Engines and turbines	43
	Farm and garden machinery	44
	Construction and mining machinery	45
	Materials handling machinery and equipment	46
	Metalworking machinery and equipment	47
	Special industry machinery and equipment	48
	General industrial machinery and equipment	49
	Miscellaneous machinery, except electrical	50
	Service industry machines	52
	Electric industrial equipment and apparatus	53
	Electric lighting and wiring equipment	55
	Miscellaneous electrical machinery and supplies	58
9.	MOTOR VEHICLES	
	Motor vehicles, parts and equipment	59
10.	OTHER TRANSPORTATION	
	Aircraft and parts	60
	Other transportation equipment	61
11.	ELECTRONICS AND TELECOMMUNICATION PRODUCTS	
	Electronic computing and related equipment	51[a]
	Radio, T.V. and communication equipment	56
	Electronic components and accessories	57
12.	OTHER MANUFACTURING	
	Ordnance and accessories	13
	Metal containers	39
	Heating, plumbing and structural metal products	40
	Screw machine products and stampings	41
	Other fabricated metal products	42
	Household appliances	54
	Scientific and controlling instruments	62
	Optical, ophthalmical and photographic equipment	63
	Miscellaneous manufactured equipments	64

[a]Includes scales and balances and office machines not included elsewhere; n.e.c. their value does not exceed 6% of trade in this sector.

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TABLE B2
CLASSIFICATION OF REGION BY COUNTRY

A. CANADA

B. JAPAN

C. EUROPEAN ECONOMIC COMMUNITY 1
Germany (FRG)
United Kingdom

D. EUROPEAN ECONOMIC COMMUNITY 2
Belgium
Denmark
France
Greece
Ireland
Italy
Luxemburg
Netherland
Portugal
Spain

E. OTHER EUROPE
Austria
Finland
Gibraltar
Iceland
Malta & Gozo
Norway
Sweden
Switzerland
Turkey
Yugoslavia

F. OTHER DEVELOPED
Australia
New Zealand
South Africa

G. LATIN AMERICA
Argentina
Bahamas
Barbados
Belize
Bermuda
Bolivia
Cayman Islands
Chile
Colombia
Costa Rica
Dominican Republic
Ecuador
El Salvador
Falkland Islands
French Guinea
French West Indies
Guatemala
Guyana
Haiti
Honduras
Jamaica
Leeward & Windward Islands
Netherland Antilles
Panama
Paraguay
Peru
St. Pierre el Miquelon
Surinam
Trinidad & Tobago
Turks & Caicos Islands
Uruguay
Venezuela

H. NEWLY INDUSTRIALIZING COUNTRIES
Brazil
Hong Kong
Korea (South)
Mexico
Singapore
Taiwan

I. OTHER ASIA
Afghanistan
Bangladesh
Brunei
Burma
India
Indonesia
Macao
Malaysia
Nepal
Pakistan
Philippines
Sri Lanka
Thailand
South Asia
French Pacific Islands
Marshall Islands
Micronesia (Fed. States of)
Palau
Papua New Guinea
Southern Pacific Islands
Western Samoa
Other Pacific Islands

J. MIDDLE EAST-AFRICA OIL EXPORTING
Algeria
Angola
Bahrain
Egypt
Gabon
Iran
Iraq
Kuwait
Libya
Nigeria
Quatar
Saudi Arabia
United Arab Emirates
Yemen (A.R.)
Oman

K. OTHER MIDDLE EAST AFRICA
Cyprus
Gaza Strip
Israel
Jordan
Lebanon
Syria
Yemen (P.D.R.)
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Central Africa Republic
Chad
Comoros
Congo
Djibouti
Equatorial Guinea
Ethiopia
Gambia
Ghana

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TABLE B2 (cont.)

Ivory Coast	Sudan	L. CENTRALLY PLANNED ECONOMIES
Kenya	Swaziland	
Leshoto	Togo	Albania
Liberia	Tunisia	Bulgaria
Malagasy Rebublic	Tanzania	Cambodia
Malawi	Uganda	China
Mali	Zaire	Cuba
Mauritania	Zambia	Czechoslovakia
Mauritius	Zimbabwe	Germany (GDR)
Morocco	Western Sahara	Hungary
Mozambique	St. Helena	Korea (North)
Namibia	British Indian Ocean Territories	Laos
Niger		Mongolia
Rwanda	French Indian Ocean Areas	Nicaragua
Senegal		Poland
Seychelles	Western Africa n.e.c.	Romania
Sierra Leone		USSR
Somalia		Vietnam

APPENDIX C
SOURCES OF INFORMATION ABOUT TRADE BARRIERS

We relied upon the published literature to determine which barriers to trade are imposed on U.S. imports of specific commodity groupings from specific regions and which barriers face U.S. exports entering other countries. This information was gathered from approximately 75 books and articles (many of the latter contained in several edited collections) listed in this appendix. Of these, six references provide relatively broad coverage including the description of tariff and non-tariff barriers to a wide range of commodities in a large number of countries.

Most of the literature, however, concentrates on the trade policies of a few countries, mainly the U.S., Japan, and the European Economic Community (EEC). Over a third of the references describe the non-tariff barriers to various commodities entering or leaving one or more of these regions and at least another third focus on their trade policies in specific sectors, mainly agriculture, steel, motor vehicles, electronics, telecommunications and, to a lesser extent, other transportation equipment (such as aircraft) and heavy machinery.

The coverage of the developing countries is much less voluminous and more fragmentary, and the bulk of the information used in this study is deduced from articles providing rather general descriptions. Trade policies of Korea, Brazil, and Mexico have been better covered than those of other developing countries and are described in some detail in four of the references. Two references discuss the trade of the centrally planned economies, mainly in high-technology products. The literature contains only incidental coverage of the barriers to trade faced by the countries and commodities which have not been specifically mentioned above.

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APPENDIX D
SECTORAL AND REGIONAL DISTRIBUTION OF U.S. COMMODITY TRADE AND ASSOCIATED BARRIERS TO TRADE

TABLE D1
REGIONAL DISTRIBUTION OF U.S. COMMODITY IMPORTS IN 1987

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	12	2	2	6	5	3	28	22	11	0	5	2	100
2. Energy raw materials	16	0	7	0	2	1	24	11	5	40	3	1	100
3. Other raw materials	41	0	8	5	2	8	12	10	1	0	9	3	100
4. Processed materials	19	8	8	16	4	6	12	15	4	5	2	3	100
5. Textile and apparel	1	3	3	11	2	0	5	51	12	1	1	9	100
6. Light manufacturing	47	5	7	11	5	1	1	19	3	0	0	2	100
7. Chemical products	15	13	25	23	7	4	3	7	1	1	1	2	100
8. Machinery	10	28	24	13	7	0	0	16	1	0	1	1	100
9. Motor vehicles	29	41	16	3	3	0	0	8	0	0	0	0	100
10. Other transportation	20	14	23	25	3	1	0	13	0	0	2	0	100
11. Electronic products	5	42	5	3	1	0	0	36	5	0	1	1	100
12. Other manufacturing	7	23	10	13	5	0	1	30	4	0	4	3	100
13. Total	17	21	11	9	4	1	5	21	4	4	1	2	100

Source: Table 2.
Note: Percentages do not total 100% because of rounding.

Note: Percentages do not total 100% because of rounding.

TABLE D2
SECTORAL DISTRIBUTION OF U.S. COMMODITY IMPORTS IN 1987

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	3	0	1	2	6	9	22	4	11	0	15	4	4
2. Energy raw materials	8	0	5	0	4	6	23	4	10	79	16	4	8
3. Other raw materials	2	0	1	0	0	5	2	0	0	0	5	1	1
4. Processed materials	15	5	10	24	14	55	34	10	14	19	16	19	14
5. Textile and apparel	1	1	2	12	5	2	10	23	28	1	6	42	9
6. Light manufacturing	20	2	4	9	10	3	2	6	6	0	1	5	7
7. Chemical products	3	2	8	9	7	10	3	1	1	1	3	4	4
8. Machinery	6	13	21	14	17	3	1	7	1	0	5	3	9
9. Motor vehicles	32	37	28	5	16	1	0	7	0	0	0	1	19
10. Other transportation	3	1	4	6	2	1	0	1	0	0	3	0	2
11. Electronic products	4	27	6	5	4	1	1	22	17	0	5	3	13
12. Other manufacturing	4	11	9	14	15	3	2	14	11	0	25	14	10
13. Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Table 2.
Note: Percentages do not total 100% because of rounding.

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TABLE D3
REGIONAL DISTRIBUTION OF U.S. COMMODITY EXPORTS IN 1987

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	7	20	7	16	2	1	5	19	4	6	4	8	100
2. Energy raw materials	23	17	4	31	4	0	1	17	0	2	1	1	100
3. Other raw materials	28	18	6	19	4	2	3	13	3	0	3	0	100
4. Processed materials	18	18	6	15	3	2	9	19	2	5	2	1	100
5. Textile and apparel	16	7	8	11	2	2	24	18	2	5	2	2	100
6. Light Manufacturing	22	21	10	11	2	3	7	15	2	2	1	3	100
7. Chemical products	13	12	8	18	3	4	10	19	4	2	1	4	100
8. Machinery	26	5	10	12	4	4	9	18	3	4	2	2	100
9. Motor vehicles	79	1	3	2	2	1	3	9	0	4	1	0	100
10. Other transportation	8	11	15	16	6	5	3	13	4	7	7	2	100
11. Electronic products	15	9	17	15	4	3	3	21	7	1	1	1	100
12. Other manufacturing	33	9	12	12	5	3	6	13	2	2	2	1	100
13. Total	24	11	10	14	4	3	6	17	3	4	2	2	100

Source: Table 3.
Note: Percentages do not total 100% because of rounding.

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TABLE D4
SECTORAL DISTRIBUTION OF U.S. COMMODITY EXPORTS IN 1987

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af Oil X	K Other ME-Af	L CPEs	M Total
1. Agricultural products	2	14	5	9	5	2	6	8	8	14	12	25	8
2. Energy raw materials	1	2	1	3	1	0	0	2	0	1	1	1	2
3. Other raw materials	1	1	0	1	1	1	0	1	1	0	1	0	1
4. Processed materials	9	20	8	13	10	8	17	14	9	17	10	6	12
5. Textile and apparel	1	1	1	1	1	1	7	2	1	2	2	1	2
6. Light manufacturing	6	11	6	5	3	7	6	5	4	3	3	8	6
7. Chemical products	6	12	9	15	10	14	17	12	12	5	5	21	11
8. Machinery	14	6	13	11	13	17	18	14	12	16	10	14	13
9. Motor vehicles	27	1	2	1	4	3	4	4	1	9	2	1	8
10. Other transportation	3	9	14	11	16	17	4	7	11	18	31	9	9
11. Electronic products	10	12	26	18	18	18	8	20	32	6	10	7	16
12. Other manufacturing	18	10	15	11	16	13	12	10	9	9	13	7	13
13. Total	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Table 3.
Note: Percentages do not total 100% because of rounding.

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TABLE D5
U.S. COMMODITY IMPORTS IN 1987 BY REGION AND SEVERITY OF TRADE BARRIERS

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af	K Other ME-Af	L CPEs
High	0	1	0	0	0	0	10	23	0	0	0	61
Moderately high	3	43[a]	10	24	0	55[b]	22	20	11	0	0	14
Moderate	15	42	59	32	40	0	34	37	14	19	0	0
Moderately low	34	13	23	42	39	0	0	15	0	0	41	0
Low	47	0	5	0	0	0	23	4	10	79	0	0
Unaccounted for	1	1	2	2	21	45	11	1	65	2	59	25
Total	100	100	100	100	100	100	100	100	100	100	100	100

[a]Predominantly motor vehicles
[b]Exclusively processed materials

Note: Each column shows the proportion of the value of U.S. commodity imports from the given region facing high through low trade barriers. The portion "unaccounted for" corresponds to the aggregate of individual trade flows which were not examined because of their small size (less than a billion dollar's worth) in terms of the commodity and region classification schemes utilized.

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TABLE D6
U.S. COMMODITY EXPORTS IN 1987 BY REGION AND SEVERITY OF TRADE BARRIERS

(percentages)

	A Canada	B Japan	C EEC1	D EEC2	E Other Europe	F Other Dev	G Latin America	H NICs	I Other Asia	J ME-Af	K Other ME-Af	L CPEs
High	0	14[a]	5	38	0	0	0	28	44	0	0	46
Moderately high	2	21	40	24	18	17	43	45	0	17	0	0
Moderate	22	26	21	16	29	35	25	21	12	16	0	0
Moderately low	30	22	30	15	16	14	23	0	0	18	31	0
Low	41	11	0	3	0	0	0	0	0	14	0	0
Unaccounted for	5	6	4	4	35	34	9	6	44	35	69	54
Total	100	100	100	100	100	100	100	100	100	100	100	100

[a]Exclusively agriculture.

Note: Each column shows the proportion of the value of U.S. commodity exports to the given region facing high through low trade barriers. The portion "unaccounted for" corresponds to the aggregate of individual trade flows which were not examined because of their small size (less than a billion dollar's worth) in terms of the commodity and region classification schemes utilized.

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TABLE D7
U.S. IMPORTS IN 1987 BY COMMODITY AND BY SEVERITY OF TRADE BARRIERS

(percentages)

	High	Mod. high	Mod.	Mod. low	Low	Unac.	Total
1. Agricultural products	0	63	0	0	0	37	100
2. Energy raw materials	0	0	0	0	93	7	100
3. Other raw materials	0	0	0	0	41	59	100
4. Processed materials	3	52	43	2	0	0	100
5. Textile and apparel	80	0	14	0	0	6	100
6. Light manufacturing	0	19	28	47	0	6	100
7. Chemical products	0	0	0	83	0	17	100
8. Machinery	0	0	68	20	10	2	100
9. Motor vehicles	0	41	30	0	29	0	100
10. Other transportation	0	14	61	20	0	5	100
11. Electronic products	0	0	78	18	0	4	100
12. Other manufacturing	0	3	0	96	0	1	100

Note: Each row shows the proportion of the value of the U.S. commodity imports from the given region facing high through low trade barriers. The portion "unaccounted for" corresponds to the aggregate individual trade flows which were not examined because of their small size (less than a billion dollar's worth) in terms of the commodity and region classification schemes utilized.

TABLE D8
U.S. EXPORTS IN 1987 BY COMMODITY AND BY SEVERITY OF TRADE BARRIERS

(percentages)

	High	Mod. high	Mod.	Mod. low	Low	Unac.	Total
1. Agricultural products	70	7	0	5	6	12	100
2. Energy raw materials	0	0	0	0	31	69	100
3. Other raw materials	0	0	0	0	0	100	100
4. Processed materials	0	48	42	0	0	10	100
5. Textile and apparel	0	0	24	0	0	76	100
6. Light manufacturing	0	0	33	33	21	13	100
7. Chemical products	4	0	23	65	0	8	100
8. Machinery	3	39	27	0	26	5	100
9. Motor vehicles	0	0	9	0	79	12	100
10. Other transportation	16	44	14	14	0	12	100
11. Electronic products	43	33	18	0	0	6	100
12. Other manufacturing	0	13	18	59	0	16	100

Note: Each row shows the proportion of the value of U.S. commodity export to the given region facing high through low trade barriers. The portion "unaccounted for" corresponds to the aggregate of individual trade flows which were not examined because of their small size (less than a billion dollar's worth) in terms of the commodity and region classification schemes utilized.

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[1]Sources of information about specific trade barriers are included in Appendix C.

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CAN INDIA HOPE TO GROW IN AN INHOSPITABLE WORLD?

JITENDRA DHOLAKIA

Director, International Development Centre, Gujrat University, Ahmedabad, India

By any measure, international economic environment is not conducive to India's development strategy of maximum growth with redistributive justice. The leading capitalist countries to-day are in the grip of a multiple crisis of declining growth rates and deteriorating balance of payments, crashing share markets and unpredictable capital movement. The spectre of depression is haunting the so-called free markets of the capitalist world. Rational and irrational expectations of the animal spirits of the advanced capitalist countries have played havoc with the world economic system. Unstable and unpredictable changes in the exchange rates of the market-dominated, leading capitalist countries are likely to have deleterious effects on the trade flows and payment positions of the developing countries like India. The market-oriented policies have failed to usher in an era of rapid growth with a stable economic system.

The prolonged mismanagement of exchange rates and misalignment of currencies have aggravated the problems of development seeking countries desiring to garner gains from the international trade. The develped capitalist countries have a vested interest in the economics of exploitation and under-development of the rest of the world because of the availability of cheap labour and cheaper raw-materials from the developing countries of Asia, Africa and Latin America. These capitalist countries do not care for the fair play of the rules of games of the international economic system so as to make the system more favourable to the needs of the developing countries. It is true that the primary responsibility of India's economic development rests with India. Hence domestic factors like big market and high saving rates will be far more important than the international factors. However, India has to find a respectable niche in an increasingly interdependent world. Development cannot be imported but it can sometimes be aborted by unfavourable, international economic environment. Therefore, ways and means will have to be found to formulate the viable strategy of Indian economic development despite unfavourable external environment concerning trade, transfer of technology, and borrowing of the foreign funds at the concessional rates. India will have to carve out a clear-cut strategy of development for the rights of the poor against the wrongs of the rich countries.

India's development strategy must be based on a renewal of commitment to the economics of self-reliance. In a crisis-ridden world economy of

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uncertain aid prospects, pernicious protectionist policies of the developed countries and irksome controls over the transfer of genuinely new technology to the developing countries, it is time we reduce excessive dependence on the foreign funds and foreign technology. We must commercially buy only the absolutely necessary technology. while we must renew our commitment to the economics of self-reliance, we must also plan to maximise the gain from our diversified export-structure. There is a large untapped potential for expanding our exports in a complex, multi-polar world economy. The internal mix of the development strategy will be guided by the criterion of self-reliance. But India will have to design a strategy of meeting the difficult balance of payment position by realising its own very considerable export potential. India will be surely confronted with the payment problem as the inflow of concessional funds has shown a marked decline in recent years. While it is obvious that India will have to rely much more on the internal dynamics of the home market rather than on the world market, it should, however, be stressed that a policy emphasis on the internal dynamics of self-reliance does not mean that export-orientation of the development strategy should be neglected. The plea for export-orientation should not be confused with the adoption of an out-ward-looking, export-led development strategy. In the Indian conditions the export-led strategy is not a practical proposition given India's size of the home market and an only 5.7 percent share of exports in the gross national product of the country. There are countries whose share of exports in their gross national products ranges from 37 to 95 and 105 to 176 percent. For example, such countries are South Korea, Taiwan, Hongkong, Singapore or the so-called gang of the four in the market-dominated economies. A strategy of export-led growth can certainly be successful in increasing further their share of trade at the expense of others in such countries. But all the developing countries including China and India cannot succeed in the export-led growth strategy in a sagging and slowly growing world economy. There is a fallacy of composition in the argument that the success of some East Asian economies can be replicated for the whole collectivity of the third world developing economies. In this context, the views of william Cline, the eminent economist, who after examining the experience of the countries choosing the export-led growth path comments: "Elevator salesman must attach a warning label that their product is safe only if not overloaded by too-many passengers at one time; advocates of the East Asian export model would do well to attach a similar caveat to their prescription". When all the developing countries attempt to pursue the export-led growth path and all do alike, no one really gains in an excessively competitive environment.

It would not be economically prudent for an economy of India's size to embark upon a major export-led growth strategy. The relevant issue in the debate is not the export-led verus growth-led strategy but one of

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increased export-orientation versus export pessimism. India should surely give up the pessimistic view that she can never do well to maximise exports. India should not forego the opportunity to tap the vast export-potential by resorting to unwarranted export-pessimism as far as the export promotion efforts are concerned. In planning for a viable and vigorous strategy of export-promotion, we should not be deterred by considerations such as unfavourable external environment and India's miniscule share of 0.50 per cent in the world trade. India has a diversified basket of exports. It could be argued that the more difficult the international environment, the more essential it is that India aggresively plans her export-promotion drive. This is the surest way to obtain the maximum gain from a diversified basket of Indian exports. Rather the deteriorating external environment calls for a redoubling of export efforts so as to maximise the economic gains from the exports. It has to be clearly recognised by the architects of the Indian development strategy that in the absence of a vigorous expansion drive, it will be extremely difficult to manage the balance of payment position. Here one has to stress the central tenet of the trade theory that impossibility is only a sum of greater unrealised export potentialities. The increased realisation of gains from the expanding exports is essential to finance the imports of items that are critical to the maintenance and maximisation of India's growth rate. Some of the imports are non-competitive with the domestic production. In other wards, the elasticity of the substitution of imports vis-a-vis domestic production is almost zero. Petroleum and lubricants, high-tech capital goods, nonferrous metals and precious stones point to the virtual inelaslicity of demand for our imports. The petroleum product imports at Rs. 5500 crores in 1985–86 accounted for 28 per cent of the country's total imports. Of course, there are many variables in the export-import matrix. These must be clearly identified so as to maximise India's capacity to import essential goods. The effects of successful export-orientation of Indian development strategy are sure to raise India's capacity to import goods which are of critical importance to realise the higher rates of the self-reliant growth. It is possible that the rising crescendo of exports may result into even more efficient import-substitution. Export-orientation in general may well be associated with successful import-substitution in some of the goods. And also in some critical areas the export promotion and import substitution may reinforce one another. The cardinal point is that there can be significant complementarities between a vigorous export promotion and efficient import substitution programmes in really growing economy in consonance with dynamics of self-reliance. The export orientation in the trade policy is a categorical imperative of a growth strategy in an unfavourable world economy.

In the context of the trade policy geared to export orientation, it is necessary to be clear about the policy of import-liberalisation. Some

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imports of essential intermediate inputs and capital goods and also of the absolutely necessary technology may be unavoidable so as to sustain the tempo of the economic growth. Here exports will have to pay for such imports. But the emphasis on excessive import liberalisation under the pretext of promoting so-called competitive efficiency is likely to deflect the Indian economy from the self-reliant growth path. Moreover, liberalisation of imports of goods and components for luxury consumption may have adverse impact on the balance of payment. Also the liberalisation of the import of technology for catering to domestic production requirements of the affluent classes may lead to an increase in the balance of payment deficits. Such a strategy is really the import-intensive growth strategy. The reason being that the goods and technologies catering to the demands of the rich in India have a higher input-import content. Moreover, such an import-intensive and a luxury consumption-oriented growth strategy must increase the unwarranted dominance of the multinational corporations and multinational banks. On account of adverse effects of such a growth-strategy on the balance of payments, India may be compelled to finance it by increasing the rate of borrowing from abroad. This is certain to lead the country into a deadly debt trap. It is not advisable for India to borrow huge amounts of foreign money from the multilateral financial agencies and multinational banks because already India's debt-service ratio as the percentage of her export earning is almost perilously close to 24 per cent of her export-earnings. India's development strategy aims at realising the triple goals of reducing poverty, unemployment and disparities in income and wealth. If India opts for a highly import-intensive growth strategy in the name of liberalisation of imports, it would imply that India has jettisoned the socially desirable goals of planning for the poor and unemployed in favour of promoting the home market for the consumption of luxury goods. A substantial increase in the incomes of the poor and working people rather than that of the affluent consumers, through socially desirable schemes like permanent employment guarantee scheme does not necessarily require adoption of import-intensive growth strategy. India should not adopt non-egalitarian strategy of the import-intensive and luxury consumption goods-oriented growth strategy.

It is true that the pursuit of economics of self-relience is not an easy task in a multi-polar world where the heterogeneous elements like big firm, selling technologies have a vested interest in the technological dependence of the developing countries like India. India will have to plan carefully and skilfully its policy regarding the inflow of foreign technology. It is necessary to note that technological progress in most countries has come about, mainly through a process of diffusion of technology and its absorption and adaptation. The implications of technological self-reliance in this context would be innovative absorption and adaptation of the technology.

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The basic macro-economic condition for the pursuit of technological self-reliance would be India's ability to buy the foreign technology without any obnoxious conditions or without having to depend on the enforced borrowing from abroad. By maximising gains from the exports of goods and services, it is possible for India to develop the economic capacity to buy foreign technology from abroad. Only the required technologies that are needed to upgrade the productivity of agriculture and essential producers goods must be imported, absorbed and adapted by India. In order to make the import of foreign technology worthwhile, it is imperative to step up the research and development expenditure on the innovative absorption and adaptation of the technology. About one per cent of the gross national production originating from the industrial sector is spent on genuine needs of technological innovations and adaptation. There must be a four-fold increase in this percentage. The industrial economy of India does have the capacity to spend the amount but lacks the willingness to spend it. In the areas of development—engineering, design technology and construction know-how, India has considerable experience which could be fruitfully utilised for the creative adaptation and deployment of technology relevant to the needs and requirements of the country. The basic tenet of India's development strategy must be to spend considerably and wisely more on the innovative adaptation of imported technology rather than on the import of technology itself.

The new international development context would require a renewal of commitment to the strategy of economic and technological self-reliance. In an international economic system characterised by the abiding constraint of the erratic changes, India will have to chart out a self-reliant growth path. The policy of excessive import liberalisation and deplorable dependence on borrowed technology will be counter productive in a world of unstable exchange rates and uncertain capital flows and unpredictable rules of international economic games. The stimulus for economic growth must be provided by the internal dynamics of self-reliance. It will therefore be necessary to concentrate on meeting the challenge of enhancing agricultural and industrial productivity. Or as Arthur Lewis said that it would be desirable to revolutionise agricultural and industrial technology instead of concentrating too much on development via trade option. Therefore the choice is clear. India should opt for self-reliant growth path instead of exportled growth path, India's development strategy should be based on the development model which emphasises basic consumption goods and essential producer goods, along with the fundamentals of innovative technological self-reliance. The market sometimes may perform allocative function but it fails to perform the creative functions of development designed to meet the hopes and aspirations of the poor and unemployed. Hence India's development strategy must be creatively consistent with socially desirable macro-economic goals, such as growth with equity,

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growth with self-reliance and growth with efficiency.

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ASIAN DEBT SCENARIOS FOR THE LATE 1980s

RAMESHWAR TANDON
Institute for Social and Economic Change
Bangalore-72

Introduction

This paper reviews the external debt situation in the Asian developing countries at the end of 1986. Some of the main alternatives, with which the LDCs will be confronted, are also reviewed. Besides the urgent need to strive for change in the external environment in which debt negotiations are conducted, it is also important that the LDCs restructure their external economic policies. Moreover it is also postulated in this paper that the ultimate origin of external debt problem facing the LDCs is to be found in the "modus operandi" of the international capital market. Hence the need for intensification of economic cooperation among the debtor countries and the launching of a new phase of import substitution along with export promotion.

There are two sources of external debt data for the LDCs, the World Bank and the OECD. The OECD report the debt of 155 LDCs and World Bank for 108 LDCs. Moreover, the OECD captures more of the private non-guaranteed debt and short-term debt than the World Bank.

The external debt of the LDCs passed the one trillion US $ mark in 1985. OECD data showed that the external debt increased from $946 billion at the end of 1984 to $1054 billion at the end of 1985. This debt was equivalent to 48 p.c. of the LDCs' combined annual output of goods and services. Hence, it is obvious that the way in which countries of the region tackle their current difficulties will be a determinant of their performance in what remains of the present decade.

Here main focus is on the outstanding features of the debt problem, along with those aspects that may prove future constraints. Also an attempt is made to identify all these structural components and the variables effecting the future evolution, along with the alternatives open to the LDCs.

Origins of the Crisis

Looking back, we find, after three decades of recess, a world financial market began to operate and to mature in the 1960s. Then in the 1970s, the LDCs in general and those of Latin America were able to secure an increasing share in a rapidly growing market which created a situation unheard of in the post-war decades.

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Among the low income countries, there has been somewhat different experience in Asia and Africa. Some low-income countries had worsening debt service ratios e.g., Burma and Pakistan. But for low-income Asia as a whole, the situation is not critical, since most of the debt is in the form of concessional long-term credits such as IDA loans. But on the other hand, low income African countries found their total external debt increase as a proportion of export earnings from about 90 p.c. in 1970–73 to almost 250 p.c. in 1985. Hence, there was five-fold increase in the total debt over the last decade and a trebling in overall debt service ratios.

According to IMF, over 40 low-income LDCs have a combined debt of $ 88 billion, just over one-eighth of all the LDCs debt. About 80 p.c. of this is official owned to governments of industrial countries and multilateral institutions and arising from past official development assistance (ODA) and guaranteed export credits.

Moreover, during the years 1972–80, the LDCs' bank debt expanded at an average annual rate of 30 p.c., two-thirds of which accounted for global growth of international financial markets. The remaining one-third was the gradual increase in the LDCs' participation in the World Financial markets.[1]

The experience of the last decade highlighted several features: the growth of international markets, a growing share of LDCs and low 'real' interst rates. Really the increase in the global dimensions of the market and fuller participation of the LDCs involved large annual flows.

Now since early 1980s, 'reverse' resource transfer has been significant element in the global scene, because the 'net' financial flow from the debtor countries runs at over $24 billion a year representing a net change of about $60 billion a year since 1980. Hence, there is an urgent need now to put the issues of debt and adjustment in the broader context of the direction and scale of resource flows between the developed countries and the LDCs. Also there is urgent need that a growing ratio of foreign-financed investment to the GDP should be accompanied by growing export/GDP ratio. This underlines that the 'new' investment financed by capital flows should be export oriented.

The 1980s of Protracted debt Crisis

Long back the Pearson Commission had recommended that the aid giving countries should consider debt relief as a legitimate form of aid and that the terms of all aid loans should be softened.[2]

Since 1975, there has been sharp decline in the economic growth of most of the LDCs due to rise in the price of investment, imports of oil

[1]See here, *The Debt Crisis and World Economy*, Commonwealth Secretariat, London (1984).

[2]Lester B Pearson, et. al., *Partners in Development*, Praeger, New York (1969), p. 164.

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and fertilizers. The rising 'real' cost of inflation and the diminishing returns associated with investments in various sectors of world economy during the 1980s, made the task of capital formation much more difficult. The LDCs' problems really began with the forced transfer of resources from them following two oil price increases, along with persistent decline in their terms of trade.

While as late as 1975–76, the external financing for the LDCs was largely provided through non-debt creating flows from official sources and long-term capital investments from private sources. But since the four-fold rise in oil prices, with a view to bridge huge current account deficits, the private markets made it possible for industrial countries to meet higher oil prices, without recession longer than was feared. But in case of the LDCs, increasing poverty caused by belt-tightening and net transfers of about 80 million U.S. dollars between 1982–84 from Latin America are but two sides of the same coin.[3]

The third world plight was also underlined by the recent GATT report that the combined trade surplus of sixteen heavily indebted countries increased again in 1985 to about U.S. $29 million. This was achieved with increased export earnings and reduced imports.[4] Similar conclusion was drawn by the World Bank report that countries heavily dependent on foreign trade, are therefore very open to sequestration orders and to a cut of trade deficits. Thus they are unlikely to choose to jeopardise their future by defaulting.[5]

The net flow of funds from the LDCs to the developed countries and the current debt servicing charges during the 1980s are shown in the table below:

TABLE 1
PUBLIC AND PRIVATE LONG-TERM DEBT AND FINANCIAL FLOWS

	All developing countries (109) (US $ billions)						
	1980	1981	1982	1983	1984	1985*	1986
1. Debt disbursed and outstanding	429.6	493.6	551.2	630.2	673.4	730.9	775.0
2. Disbursements	102.8	122.8	115.8	96.5	88.3	81.7	72.0
(from private creditors)	74.6	91.3	83.9	63.9	56.1	52.1	41.0
3. Debt services charges	74.2	87.6	97.4	90.8	99.0	108.0	101.0
(i) Principal repayments	42.0	46.5	48.8	44.0	46.3	53.5	51.0
(ii) Interest	32.2	41.1	48.6	46.8	52.7	54.5	50.0
4. Net transfers	28.7	35.2	18.4	5.7	−10.7	−26.3	−29.0

*Preliminary for 1985, Estimated for 1986
(Source: *World Debt Tables*: 1986–87 Edition)

[3]See here Oswaldo Sunkel, *Latin America and International Economy*, 1985, p. 17.
[4]GATT, International Trade 1985–86, Geneva.
[5]World Bank, *World Development Report*, 1985, p. 92.

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Trends in Resource Flows

Due to heavy borrowings of non-oil LDCs over the last several years, their aggregate debt rose from $288 billion in 1978 to an estimated $445 billion and 570 billion in 1985. During the 1970s, major portion of balance of payments surpluses of developed countries and Japan were absorbed by the LDCs. During the 1970s, current account (savings) surplus of industrial countries was around 0.07–1 per cent of their GNP, but the current account deficit of the LDCs together was about 2.0–2.5 per cent of their combined GNP.

For the middle-income countries, and the NICs in South Asia, the share of ODA loans dropped sharply from 45% in 1971 to 22 per cent in 1985 for middle income countries and from 16 to 3 per cent for NICs over the same period. Since early 1970s, the banking sector emerged as major source of capital and later was major cause of LDCs' debt crisis also. By 1973 the share of ODA in total resource flows to the LDCs declined to about one third. The DAC countries gradually become less important as suppliers of official development assistance.

The resource flows to LDCs touched a new high of $107 billion in 1981. The growth in the volume of resource flows during the decade ending 1983 was 85 per cent. This decade also saw a significant change in the composition of aid. While the share of ODA in total resource flows declined to about 28 per cent but the share of DAC countries in the total ODA was steady around 55 per cent. The OPEC countries also became important source of ODA, but their lending was reduced from $8.5 billion in 1975 to $4.5 billion in 1985.

While the share of the ODA debts in the non-oil LDCs' total debt declined from two-fifths in 1971 to less than 25 per cent during 1985. Also the share of export credits declined from 33 per cent in 1971 to 21 per cent in 1975 and remained stable since then. But the non-concessional multilateral debt has been a constant 7 per cent share since 1975.

There was sharp increase in non-concessional flows to $82.5 billion in 1985. In this, private flows found a major share. While direct investment declined to $7.8 billion from its peak of $16.5 billion in 1975, the flows from banking sector were largest at $54 billion, amounting to about half of total resource flows out of this about 19 billion was for rescheduled short-term debts.

In 1984, total resource flows to LDCs from all sources (grants, debt creating and equity as measured by the DAC of OECD) amounted to $92 billion (at 1983 exchange rate). This was $26 billion below the preceding year and also lower than in any year since 1980. In 1984, decline occurred in private flows ($2.8 billion) and was marginally compensated by growth of official flows consisted of the ODA on concessional terms of $36 billion and non-concessional official and officially supported flows of $28 billion, making for a total of $56 billion. This total was really under the level of

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1980. The decline and stagnation of private lending and investment in the 1980s have not been offset by increase in the official flows.[6]

The DAC data do not indicate 'net' transfers for which it is also necessary to deduct return flows on debts and investments from DAC resource flow figures.

In case of the LDCs of the ESCAP region, total debt service payments grew sharply from 46 billion in 1978 to $100 billion in 1985. Really the debt service burden, measured as shares of export earnings, differs among groups of LDCs due to different structure of their debts and varying export trends. While for low-income countries, interest payments formed lower proportion of debt service payments due to their ODA debts, still total debt service payments have exceeded 25 per cent in several cases due to weak export trends. But for faster growth of middle income countries, exports have accounted for their lower debt service ratio.

One consequence of rise in debt-service payments has been a decline in 'net' transfers to poor countries, since 1980. The total net transfers to low income Africa, after reaching peak of $2.7 billion in 1980 in nominal terms, declined to $1.1 billion in 1983. The net transfers to low-income Asia also declined since 1980, though not as sharply as to Africa. In Africa 16 countries showed 'negative' transfers during 1971–81 period and overall the official grants to low-income Africa also declined since 1980.

The continuous uptrend in oil prices in 1978–79 further complicated the balance of payments deficits of developed countries. The resource flows to the LDCs peaked to $107 billion in 1981. With the decline of 'other' sources of finance, there has been growing reliance on short-term debts in case of countries having huge arrears on revolving credits to commercial banks and on imports for foreign suppliers. One consequence has been that fresh trade credit has dried up for many countries.

This rapid build-up of short-term debt was partly because of borrowers seeking to avoid higher spreads on medium and long-term loans and also increasing reluctance by banks to extend loans to some borrowers for several sub-Saharan African countries, the short-term debts and trade arrears reached quarter of the total debt outstanding and in some cases e.g. Tanzania and Zambia, they equalled annual export earnings.

Another significant development was growth of assistance from multilateral development banks e.g. World Bank and Asian Development Bank. The aid provided by multilateral development banks increased from 2.4 billion in 1973 to 9 billion in 1985.

Some of Asian countries (India, Pakistan, Bangladesh) carried out debt renegotiations under the aid consortia. The debt relief was linked to new aid to context of general commitment by donors and has helped to keep South Asia free from debt servicing problem.

[6]OECD, *DAC 1985 Report*, Paris, Nov. 1985, p. 162.

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While the principle that debt relief should be treated as legitimate form of aid was endorsed by the Pearson Commission Report (1969), but the later experience showed that bilateral case-by-case approach in case of several poor countries lacked the coordinated aid consortium framework. While the LDCs pursued for 'generalised' debt relief, this was widely resisted and compromise agreement was reached in 1978 (UNCTAD Resolution 165), under which donors agreed to adjust terms of bilateral ODA retractively as a means of improving net flows. Since the resolution has no binding commitment, the USA had not implemented the RTA and other donors also varied their commitments.

Continuing Growth of Debt in the 1980s:

The external debt of the LDCs continued to increase through 1985–86, despite suspension since 1982 of 'new' bank lending to the LDCs in Latin America, Africa and Asia. Really, it is the combination of high interest rates and of falling export prices which made the debt crisis of the 1980s so complicated indeed.

The total resource flows to LDCs (at 1984 exchange rates and prices) continued to decline during last three years upto 1986, due to sharp decline in bank lending from $ 49.6 billion in 1981 to $ 13.5 billion in 1985. Bank lending has declined further during 1986 and 87 and the total resources flows to LDCs fall by 15 per cent in real terms.

The ODA, after declining in 1982, increased to $ 36 billion in 1985 and its share in total resource flows increased to about 46 per cent.[7]

While over the 1975–80 period, an average of 78 per cent of all 'net' resource receipts by the LDCs came from DAC member countries, another 14 per cent came from multilateral agencies finance by DAC member country. Really past trends of resource flows showed ODA as more dependable and growing form of resource, but some countries did not bother to implement UN development decade target (1961) that the developed countries should provide one per cent of their GNP as net resource flow to LDCs. The target for their assistance in the ODA was placed at 0.7 per cent of their GNP.

So far only Denmark, Netherlands, Norway, Sweden achieved ODA target of 0.7 per cent, while Canada, Finland, France and Italy accepted the ODA target of 0.7 per cent of GNP. But recent data show a trend towards decline in the share of ODA and increasing share of non-concessional flows. The bank lending, private export credits and direct investment flows are important sources of non-concessional flows. On the average, only about one-fifth of ODA and one twelfth of non-concessional flows were channelled through multilateral agencies during 1980–85: over the same period, multilateral resources formed about 15 p.c. of all

[7]See here R. H. Patil, in *Journal of Foreign Exchange and International Finance*, Oct. 1987.

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resource flows. There has been one percentage point increase in multilateral share in total ODA resources since 1974. This was partly due to OPEC's contribution to multilateral resources which were at a zero level before 1974. Looking at the distribution of component of resource flows by income groups, about one third of total resource flows went to NICs, another one third to middle income LDCs and one fourth to low-income countries. The non-concessional flows mostly went through the NICs (59 per cent) and to the middle-income countries (28 per cent). The low-income countries received only 3 per cent of bank credit and 6 per cent of private investment flows.

While the developing ESCAP countries received 19 per cent of total net resource disbursements to all LDCs in 1980, the Asian LDCs share in DAC bilateral resources averaged 18 per cent during this period. Moreover, the value of total net resource flows to all the LDCs increased by 65 per cent between 1980–85; the DAC disbursements increased by 76 per cent and multilateral flows by 90 per cent over the same period.

The average rate of growth for ESCAP region has been strongly influenced by disbursements of multilateral resources to South Asia since 1980. This trend partly reflects large IMF borrowings by South Asian countries, alongwith IMF Trust Fund facilities.

Since early 1980s, several countries in Asia continued to borrow on a significant scale to supplement domestic resources. This group includes: Indonesia (debt of 36 billion at the end of 1985) India ($ 35 billion), Egypt (36 billion), Malayasia (20 billion) and Thailand ($ 18 billion).

Moreover, debts of countries with large existing debets ('old' debtors) also continued to grow, though most of them were making massive foreign debt service payments during last four years. The combined debt of six old debtors: Argentina, Brazil, Chile, Mexico, Nigeria and South Korea rose from $ 291 billion in 1982 to $ 337 in 1985 or sixteen per cent. The debt growth resulted from a 'de facto' partial capitalization of interest.[8]

For the last several years, rising volume of "reverse" resource flows from the LDCs due to debt service payments also assumed frightening proportions. The 'net' transfers to East Asia and Pacific amounted to 64 p.c. of gross disbursement in 1980, but there were only 39 per cent of gross disbursement in 1985.

For the last few years, the ratio of net transfer to gross disbursements was more favourable to South Asia as compared to East Asia and Pacific due to larger element of concessionality in resource flows to South Asia in Lower average rates of interest, larger average grace and maturity periods and higher grant element in total resources.

Hence during the four years, 1983–86 financial transfers from capital-

[8]See here, D. Avramovic "Developing country debts in the mid 1980s", in Hans Singer, N. Hatti and R. Tandon, (eds.) *Resource Transfer and Debt Trap*, 1987, Ashish, New Delhi, p. 856.

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importing LDCs amounted to $ 48 billion, while their total debt increased by $ 181 billion. This is rather absolutely impossible state of affairs for the LDCs. Recently the growing resource limitation of multilateral agencies in the face of increasing needs of poor countries has been a major concern. The multilateral institutions show a strong concentration than bilateral donors of concessional resources on the low income countries, because the eligibility for multilateral funds is largely determined by income criteria.

In the ESCAP region, South Asia continues to receive a larger share of ODA flows. South Asia received 18 per cent of all ODA flows or 63 per cent of the LDCs. ESCAP region's average share was 28 per cent of ODA flows during 1976–80. The ESCAP LDCs received a declining proportion of annual flows from DAC countries averaging 30.5 per cent during the period. The share was 34.5 in 1976, falling to 28 per cent in 1980 and 23 per cent in 1985. Several countries in the region now are not classified as low-income countries and now do not qualify for concessional assistance e.g. IDA soft-term credits. Indonesia recently stopped drawing upon IDA credits, following the earlier example of Thailand. This tendency of total ODA flows to decline is disturbing for low-income countries of the region. Now China's entry into resource distribution picture increases the weight of ESCAP region in the distribution.

In South Asia, countries such as Burma, Philippines, Republic of Korea, Malaysia and Indonesia have debt: GNP ratio as high as 76, 74, 57, 55 and 42 respectively against 19 for India. Even the debt-service ratio of 55 for Burma and 38 for Philippines are beyond that of India's 28. Now what is urgently required is to keep the debt-service ratio within prudent limits, though it has crossed in India's case now.

Unfortunately India's debt-service ratio, which was about 7.7 per cent in the beginning of the 80s, shot up to 11.2 per cent in 1984 and jumped to 22 per cent and crossed the prudent limit of 20 per cent in 1985. In 1986 the ratio, taking into account the IMF loan repayment, stood at 28.5 per cent. This ratio may cross 30 per cent in the year 1989–90 when instalment of $ 1.1 billion of the IMF loan falls due.

Debt Situation for the Asian LDCs

For most of the LDCs in the region, improvement in international economic conditions, even if sustained, will not resolve the urgent problem of how to clear up the debris left over from the period of international financial crisis, which now may be receding. For the LDC group as a whole, a three per cent growth rate seems in prospect during 1987 and 1988, even after the oil price and interest rate declines of the last few months. The latest forecasts suggest that in most of the countries of Africa, South Asia and Latin America, the per capita income will continue to decline or at best to stagnate.

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Almost all the LDCs (low or middle-income) face a growing financing gap over the next decade. Even in China and India, which followed more self-reliant strategy, additional external capital would help further economic liberalization and higher growth.

According to the OECD data, external debt of Asian LDCs increased by 15.5 per cent in 1986, that is much higher than that of 1984 (9.8 per cent) and 1985 (11.7 per cent); here allowance should also be made for sharp fall of the U.S. $ against most currencies that affected the external debt outstanding and also the debt service payments. While the size of this impact depends on the currency composition of debt outstanding, the share of US $ debt in total long-term debt of 9 Asian LDCs was 55 per cent and those of yen debt and DM debt were 16 per cent and 5 per cent respectively.

The external public debt outstanding of Asian LDCs increased by 8 per cent in 1985 and 7 per cent in 1986 due to the US $ depreciation. Also there have been several changes in the external debt structure of Asian LDCs recently. The share of short-term debt decreased from 21 per cent in 1980 to 14 per cent in 1985. It was the NICs followed by South-East Asian countries, that reduced their share of short-term liabilities, but the share of short-term debt in the NIC's total debt still stood at 24 p.c. in 1985, compared with 18 per cent for South-East Asia and only 5 per cent for South Asia. The share of the IMF credits also increased during the last several years, mostly due to significant increase in South Asia's use of IMF credit from 4 per cent in 1980 to 10 per cent in 1986.

Really China and India have been development successes of the 1980s, unburdened by extensive debt and less adversely affected by external environment than other LDCs. Their per capita growth rates also accelerated during 1980–86.

According to recent estimates for the large Asian countries, financing requirements of the order of $ 10 to 15 billion in 1990 and about 20 billion in 1995 have been worked out. Even on the assumption that these countries will absorb one-third of the projected total official bilateral and multilateral lending, they face a large need for private finance. The questions are whether even they will find the changed capital markets of the late 1980s helpful for them.[9]

While in the case of the NICs, loan from international banks is a major source, as it formed 75 per cent in 1986. But bilateral ODA is only 4 per cent of external debt of the NICs in South-East Asian countries, about one-half of external debt is from international banks and bilateral ODA, trade credit and multilateral institutions claim 10 per cent each of total debt. But for South Asian LDCs, the leading source of credits are multilateral institutions, accounting for 75 and 42 per cent of debts of Nepal and

[9]See here UN, *Doubling Development Finance: Meeting a global challenge*, New York, 1986.

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Bangladesh. Bilateral ODA is also crucial in South Asia, forming more than 35 per cent of debt in Bangladesh, Burma, Pakistan and Sri Lanka.

But to assume that the gap will be filled by private finance may be too hazardous now, because the potential costs of variable interest rates may prove staggering. Also we cannot disregard the vulnerability of medium-term finance for development projects with long pay-off periods. Really the external debt situation of Asian LDCs, assessed by various external debt indicators, worsened during 1985–87 period, as both external debt outstanding and debt-service payments increased significantly. But export earnings and GNP in US $ declined.

According to OECD data, debt outstanding to GNP ratio increased from 26 per cent in 1984 to 34 in 1986. The debt outstanding to exports jumped from 124 per cent to 185 per cent during the same period. As per the World Bank data, the debt service ratio increased from 11 per cent to 18 per cent and interest-service ratio shot up from 8 per cent to 12 per cent; still these ratios are lower than averages of all the LDCs. A declining trend in 'net' transfers since 1985 has been a matter of concern. The net transfers to Asian LDCs from Long-term external debt continued to decline from a high of $ 18 billion in 1982 to $ 9 billion in 1983, 6.5 billion in 1984 and 2.2 billion in 1985. The loan disbursements have increased in nominal terms over the same period, but the debt-service payments shot up vigorously, reducing the size of 'net' transfers.

Hence South-East Asia was the most affected group with net transfers declining from $ 3.8 billion in 1981 to 'negative' net transfers in 1986. The debt-service actually exceeding debt disbursement by $ 0.5 billion each in Indonesia and Malaysia and Phillippines had negligible net transfers, but the South-Asian LDCs except Pakistan continued to have positive net transfers. India's net transfers increased by 50 per cent to over $ 1.5 billion in 1985.

One silver lining in the debt situation of the LDCs can be found in the 'average' terms of new loan commitments. The average interest rate for new commitments to all Asian LDCs fall from 7.9 per cent in 1984 to 7.4 per cent in 1986 and the average grace period increased from 5.9 years to 7.5 years. Here the comparative advantage accrues to some Asian LDCs, which could borrow significant portion of their debt at concessional terms.

While the developed countries completely ignored the recommendation of the Brandt Commission for a massive increase in resource transfers to the LDCs,[10] the link between aid transfers and developed country export growth was also dismissed as too simplistic. Really the present patterns of official lending suggest that by 1990 the LDCs will be raising well over half of their development finance from private, rather than official sources. This is clearly unacceptable, since these LDCs require to a large extent more access to official financing.

[10] *North-South, A Programme for Survival*, London, Pan Books, 1980, pp. 241–242.

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BOOK REVIEWS

MONEY AND FINANCE IN WORLD ECONOMIC ORDER

Editors: V. R. PANCHAMUKHI, KALYAN M. RAIPURIA and RAMESHWAR TANDON; *published by* Indus Publishing Company, New Delhi for Research and Information System for Non-aligned Countries, New Delhi, 1987; pp. 468; price Rs. 325

Reviewed by P. ABDUL KAREEM, Institute for Social and Economic Change, Bangalore.–560072 (India)

For several years, "reverse" resource transfer has been an important element in the external relationships of the LDCs. Now in the late 1980s, the current account deficit of the non-oil LDCs has exceeded all projections for the last five years. The rising real cost of inflation and diminishing returns associated with investments in various sectors of the world economy during 1970s, made capital formation more difficult.

While the debt servicing record of the LDCs upto recently has been good, various strains have been developing with an increasing number of LDCs in arrears in external payments. Really the LDCs' gross capital market borrowing has not increased; in 'real' terms, it has fallen. General foreign exchange shortages in the LDCs also induced the governments to adopt various measures like devaluation and import restrictions.

In this volume, based on invited papers, focus is on the following issues: debt and aid, international reserves and SDR institutional issues, exchange rate fluctuations, and monetary cooperatives among LDCs.

In the first part, Mayer finds that the abrupt slow-down in capital flows in 1982 and the debt crisis meant that the pattern of capital flows was not in conformity with normative model. The situation could have been avoided if the developed countries had grown in the same way after the second oil price rise (1979), as they had done after the first oil price rise and the dollar interest rates would not have risen. Really what has happened is that increased official assistance has been made dependent on continued lending by commercial banks; such involuntary lending by the banks cannot be a long-term solution.

Arjun Sen Gupta finds that the Brandt Report skirts several issues of international political economy and emphasis here is on the gains in terms of potential output and economic welfare, employment, lower inflation and productivity. The basis of the commission's propositions is questionable and the one relating to growth of North for the development of South is rather difficult to prove.

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Bindert in her paper contends that so far the burden of 'belt-tightening' adjustment programmes fell upon the debtors and the ability and willingness of governments to cooperate is reduced to minimum, except at the eleventh hour.

In the Avramovic paper, focus is on high interest rates and its policy implications. At the present level of interest rates and the stock of debt, annual world interest payments worked out to be larger than the annual increase in world income. The author suggests a hypothesis that explanations for present high rates may lie in the ratio itself. Now what is needed is joint international measures towards ceilings on rates and regulations of capital markets.

The Narasimham paper focuses on the crisis posed by the LDCs' more durable debt problem manifested in their debt liabilities and servicing obligations. It is suggested that most of the LDCs, except China, India and Pakistan, remain producers of primary products. The LDCs, even with low debt servicing ratio, find it difficult to manage their external payments. It is also underlined that the debt relief in the form of retroactive term adjustment (RTA) has not been uniform for all these LDCs and failed to dispense with the problems. These are not the countries that should be advised to go for commercial loans.

Rameshwar Tandon finds that the post-war achievements in monetary cooperation have been quite impressive and there has been no competitive cycle of retaliatory devaluation and exchange restrictions. The LDCs derived significant benefits by belonging to the dollar or sterling area or pegging without margins to a reserve currency. But to exchange 'current' for 'future' resources at recent rates and on current terms is not a prudent way of fostering larger flow of resources to the LDCs.

In the second part, Victor Argy looks at the issue whether a case can be made for monitoring the growth of international reserves. The Brettonwood system had not provided for systematic long-term growth in international reserves. Hence, shortage of international reserves was an undesirable consequence for the world economy. The real objective of surveillance is to strike a balance between exchange rate adjustment and management. But it is unlikely that the larger industrial countries would submit to IMF supervision in this area.

The case put forward by J. Williamson quoted by V. K. R. V. Rao for SDR/Aid link remains valid for the least-developed countries. Dr Rao warns that new international economic order should not become another sweet pill to mark the reality of continuous decline of LDCs in comparative terms. He also rejects the case that the SDR system allows a 'neutral' distribution of seigniorage (by linking it with the allocation of IMF quotas) and so it should be operated that way. While fresh allocation of SDR is still doubtful, with a consensus still being elusive, any accord here should be on the basis of the principle as laid down by Williamson.

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Graham Bird observes that the LDCs have been reluctant to draw from IMF in the upper credit bracket, due to very high degree of conditionality involved. Bird even suggests increasing the size of the trust fund, expanding the scope of subsidy account and facilitating increased flow of private capital, under international confidence created by the IMF. His fear is that the present approach of the developed countries is not conducive to long-term interests of revival in the world economy. Really the role led by IMF by mere size of resource flows is quite marginal since the bulk of resource flows comes from private capital market.

K. N. Raj advocates a decentralised reserves system, with the formation of several payment unions which need not be among the LDCs alone, but should associate many developed countries, e.g., France, Sweden, Italy and Japan. Such arrangements would facilitate gradual emergence of substitutes for key currencies such as dollars.

Nowzed advocates that the Fund should maintain continuity of purpose. The breakdown of par value system, leading to volatility of exchange rates, rise in oil prices, two world recessions and serious debt crisis have all led to various structural changes.

Gulati in Kala Memorial Lecture holds that the conditionality does not refer to maturity pattern or interest obligations of IMF loans, but it refers to linkages between Fund support and adjustment action by the borrowers.

Gulati rightly stresses that the choice of policy instruments for adjustment should be better left to the countries concerned, rather than imposing them from outside. He appeals for a reconsideration by the Fund of its high conditionality approach to its funding activities.

Gerster finds that Fund adjustment programmes under conditionality measures do not take account of income distribution effects and basic needs. The conventional conditionality has a tendency to perpetuate dependency of the LDCs, rather than promote self-reliant development.

Sidney Dell in his hard hitting article holds that the IMF programmes have implied an "over kill" in that they have generated a process of economic deflation. The IMF should keep in view the objectives of equity and efficiency in the distribution of political and economic cost of adjustment. The upper credit branch conditionality goes beyond the objective of safeguarding the revolving nature of IMF resources.

Williamson suggests that the easing of external constraint on its members should be provided by liquidity rather than solvency. It is argued that countries faced with exogenous payments problems might be allowed low-conditionality finance for a tapering proportion of deficits resulting from adverse shocks.

Raipuria in his paper brings out the inequitable distributions coming from revision of quotas and need for further analysis. The extent of retrogression is revealed by the author's analysis, based on bivariate distribution of countries, according to their present quota levels and variations

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in percentage share under the eighth review. Raipuria also suggests that the next review should provide for enlargement of the access of majority member countries for resources expressed as a multiple of quotas.

In the fourth section on exchange rate fluctuations Rangarajan and Ahluwalia point out that countries have followed uncoordinated macro-policies and there is a feeling that the currency savings have been excessive and also that there have been currency misalignments. It is also worth considering to what extent floating rates can generate "fundamental equilibrium" in Williamson sense.

Biswas and Trivedi suggest that the choice of exchange rate regime is governed by the degree of "openness" of the economy, as measured by the ratio of total trade to GNP. A 'general' floating leads to more unstable exchange rates between the LDCs and developed countries, than those between developed countries themselves.

Panchamukhi looks at the Indian experience since 1970–71. The exchange rate policies are chosen with several objectives: (i) imparting a greater measure of stability to exchange rate for rupee in context of floating, (ii) ensuring reasonable rates of exchange for export of goods and services, (iii) imparting stability to exchange markets. By using partial adjustment models, the adjustment of 'actual' exchange rate to equilibrium rate is examined in different exchange rate regimes and pace of this adjustment is marginally greater during floating rate regime.

NEW WORLD ORDER SERIES: ECONOMIC THEORY AND NEW WORLD ORDER

Edited by HANS SINGER, NEELAMBAR HATTI, RAMESHWAR TANDON; *published by* Ashish Publishing House, New Delhi, 1987; pp. 635; price Rs. 400

Reviewed by P. ABDUL KAREEM, Institute for Social and Economic Change, Bangalore–560072 (India)

The book under review is one of the six volumes in the New World Order series. The papers divided into seven parts range from the political economy of new international economic order to the crisis of capitalism in the periphery and long-term growth prospects in the 1980s. In view of thought provoking analysis by several eminent people, the reviewer's task is not so easy.

While for quite some time, we hear a lot about 'interdependence' and the emerging 'global village', now we find that for various reasons, there

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was slowdown in the industrial countries. Moreover the LDCs raised the demand for changes in the working of various rules of the game, but it is not about 'alternative' versions of 'another' development.

Really no progress has been made in the North-South negotiations, since the Cancun summit. Now we can say that among the causes of failure on most of the issues involved, the bargaining system is the most important factor. Hence the needs and special conditions of the LDCs were mostly ignored over the years and the experience of the 1970s showed that even the limited amount of colonial type of growth transmission from North to South was no longer possible. Radicals like John Galtung argue that "If a change is wanted, very little can be obtained through negotiations with the holders of power . . . by using the existing system or by relying on them, the results are already given."

In the LDCs, the differentiation is also growing in view of various policy changes and political implications. As Paul Streeten put it recently, "There has been no international cooperation in fighting world-wide crisis of unemployment. National policies are being pursued in isolation; the balance of payment surpluses of a few countries are kicked around from country to country; Japan and Germany are exporting their unemployment and what each country does, often increases the difficulties of others."

Raul Prebisch argues that the crisis of capitalism is structurally different from the cyclical waves of the 1930s. It derives from the inherent logic of the system and the most disturbing feature of this crisis is the structural imbalance between the rate of consumption and the rate of accumulation of reproductive capital. This disproportionate consumption comes about because the privileged consumption of the upper classes is being inflated by the private and social consumption of various categories of workers and civil and military consumption of the state.

On this view, the problem is inadequate investment. O. Sunkel quotes from Bank for International Settlements that the first signs of a break in growth trends, as far as fixed capital investment is concerned, were evident in the late 1960s and early 1970s, well before the oil-shock. Hence, the problems involved in the new world order are looked upon as a zero-sum game order, that is, the gains of the third world, in terms of more voting power, or a rise in terms of trade of primary commodities related to manufactures, would be a loss to the developed countries. But as Hans Singer points out, not all the specific demands made to reduce the inequities between countries represent real zero-sum games.

Moreover, Paul Streeten argues that still there is scope for positive sum games in international cooperatives among countries, despite their heterogeneous interests, as Reginald Green is sceptical on the growth prospects, since the industrial countries are unsure of what has hit them. Moreover in the U.S. and U.K. dogmas are entrenched that lower inflation may be

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achieved by a draconic use of monetary policies to counter fiscal irresponsibilities, massive tax cuts and huge spending shifts from services to defence. These are, to Green, the parameters constraining the world economy growth.

G. Helleiner holds that the task of building 'new' theory is not easy and we need to work to improve existing theories of functions of the world economy. In the second part, dealing with South-South Cooperation, S. Chakravarty urges the economists to allow the phenomenon of novelty, a factor emphasised by dialectical reasoning. Samir Amin also wonders about the paradox that the growth of capitalism is now only really possible on the basis of the abortion of socialism. His conjecture is that the people of the third world might lead the process of world transformation.

Lance Taylor agrees with Nurkse that "until southern countries gain control of their own economic destinies, their dependent position is certain to persist. K. Kosima asks both the rich and poor countries to narrow the wide gap in philosophy.

The third part concerns global efforts made to attempt a new world order. Karl Sauvant pleads in favour of a World Congress of heads of states on development that could deal with the entire range of development issues. Sunanda Sen also feels that the success or otherwise of NIEO programme is circumscribed by factors beyond its own spheres of influence.

In the fourth part, focus is on the years of Brandt Report and after. A. Maizels emphasizes the importance of greater bargaining power of the LDCs in the realization by developed countries that in the long run, they would benefit. Dr. Manmohan Singh finds no reason to believe that the process of economic decolonization is going to be less arduous; still the LDCs must persist in their struggle.

Willy Brandt is rather optimist that the peoples of the world and majority of governments would be ready to cooperate in setting up a new world order. In the sixth part, Raul Prebisch underlines that conventional theories continue to disregard the social structure. What is more, prosperity of the centres spread quickly to Latin American periphery. But the crucial issue is poor income distribution.

In the last part A. G. Frank suggests that the present recession is the fourth in world economic crisis that started in 1967. The succession of the recessions, the advance of inflation and doubling of unemployed in the West between 1967 and 1975 recession and its doubling again to the present recesssion, have posed various complex problems of political economic policy.

On the other hand, S. J. Patel finds that the current economic crisis is building up highly disruptive pressures at the most vulnerable points. The combination of continued occurrence of crisis and emergence of industrial socialism has exercised profound influence on world society.

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On the other hand, Samir Amin holds that the capitalist mode of production encounters a profound inherent tendency towards stagnation, so the bourgeoisie in the south are caught between nationalist desire and their submission to compradorization. Hence the current crisis is manifested by the ungovernability of the system.

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ASIAN DATA BANK

Set up in 1983 by the Society for Asian Development with the object of providing authentic and reliable data relating to the developing economies of Asia

Data Profile of Asian Economies

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TABLE 1

BASIC INDICATORS—ASIAN COUNTRIES

Sl. No.	Countries	Population (millions) mid-1986	Area (thousands of square kilometres)	GNP per Capita		Average annual rate of inflation (per cent)		Life expectancy at birth (years) 1986
				Dollars 1986	Average annual growth rate (per cent) 1965–86	1965–80	1980–86	
Low-income economies								
1.	Bhutan	1.3	47	150	—	—	—	45
2.	Nepal	17.0	141	150	1.9	7.7	8.8	47
3.	Bangladesh	103.2	144	160	0.4	14.9	11.2	50
4.	Burma	38.0	677	200	2.3	8.7	2.1	39
5.	India	781.4	3,288	290	1.8	7.6	7.8	57
6.	China	1054.0	9,561	300	5.1	0.0	3.8	69
7.	Pakistan	99.2	804	350	2.4	10.3	7.5	52
8.	Sri Lanka	16.1	66	400	2.9	9.6	13.5	70
9.	Afghanistan	—	648	—	—	—	—	—
10.	Viet Nam	63.3	330	—	—	—	—	65

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Middle-income economies							
11. Indonesia	166.4	1,919	490	4.6	34.3	8.9	57
12. Philippines	57.3	300	560	1.9	11.7	18.2	63
13. Thailand	52.6	514	810	4.0	6.8	3.0	64
Upper Middle-income							
14. Malaysia	16.1	330	1,830	4.3	4.9	1.4	69
15. Korea, Rep. of	41.5	98	2,370	6.7	18.8	5.4	69
16. Hong Kong	5.4	1	6,910	6.2	8.1	6.9	76
17. Singapore	2.6	1	7,410	7.6	4.7	1.9	73
18. Iran, Islamic Rep.	45.6	1,648	—	—	15.6	—	59
19. Iraq	16.5	435	—	—	—	—	63
High-income oil exporters							
20. Saudi Arabia	12.0	2,150	6,950	4.0	17.2	−1.3	63
21. Kuwait	1.8	18	13,890	−0.6	14.1	—	73
22. United Arab Emirates	1.4	84	14,680	—	—	−1.4	69
Industrial market economies							
23. Japan	121.5	372	12,840	4.3	7.8	1.6	78

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TABLE 2

GROWTH OF PRODUCTION—ASIAN COUNTRIES

Sl. No.	Countries	GDP (per cent)		Average annual growth rate (per cent)							
				Agriculture		Industry		Manufacturing		Services etc.	
		1965–80	1980–86	1965–80	1980–86	1965–80	1980–86	1965–80	1980–86	1965–80	1980–86
	Low-income countries										
1.	Bhutan[a]	—	—	—	—	—	—	—	—	—	—
2.	Nepal	2.4	3.5	1.1	4.8	—	—	—	—	—	—
3.	Bangladesh[a]	2.4	3.7	1.5	2.7	3.8	4.6	6.8	2.1	3.4	4.7
4.	Burma[a]	3.9	4.9	3.7	4.7	4.4	6.3	3.9	5.8	4.0	4.8
5.	India	3.7	4.9	2.8	1.9	4.0	7.1	4.3	8.2	4.6	6.0
6.	China[a]	6.4	10.5	3.0	7.9	10.0	12.5	9.5[b]	12.6[b]	6.4	4.2
7.	Pakistan	5.1	6.7	3.3	3.3	6.4	9.3	5.7	9.3	5.9	7.2
8.	Sri Lanka	4.0	4.9	2.7	3.9	5.1	4.5	3.2	5.6	4.3	5.7
9.	Afghanistan	2.9	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
11.	Indonesia[a]	7.9	3.4	4.3	3.0	11.9	1.8	12.0	7.7	7.3	5.6

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11. Indonesia[a]	7.9	3.4	4.3	3.0	11.9	1.8	12.0	7.7	7.3	5.6
12. Philippines[a]	5.9	−1.0	4.6	2.0	8.0	−3.5	7.5	−1.7	5.2	−0.6
13. Thailand[a]	7.4	4.8	4.9	2.9	9.5	5.0	10.9	5.2	8.0	5.6
Upper Middle-income										
14. Malaysia[a]	9.0	2.7	3.8	2.0	9.9	1.6	9.6	1.2	10.0	3.8
15. Korea, Rep. of[a]	9.5	8.2	3.0	5.6	16.5	10.2	18.7	9.8	9.3	7.2
16. Hong Kong	8.5	6.0	—	—	—	—	—	—	—	—
17. Singapore[a]	10.4	5.3	3.1	−3.5	12.2	4.4	13.3	2.2	9.7	6.1
18. Iran, Islamic Rep.	6.2	—	4.5	—	2.4	—	10.0	—	13.6	—
19. Iraq	—	—	—	—	—	—	—	—	—	—
High-income oil exporters										
20. Saudi Arabia[a]	10.9	−3.4	4.1	10.3	11.6	−10.4	8.1	6.1	10.5	4.4
21. Kuwait[a]	3.1	−0.9	—	—	—	—	—	—	—	—
22. United Arab Emitrates	—	−3.8	—	—	—	—	—	—	—	—
Industrial market economies										
23. Japan[a]	6.3	3.7	0.8	1.0	8.5	5.0	9.4	7.8*	5.2	2.9

[a]GDP and its components are at purchaser values.
[b]World Bank Estimates.
*Figures are for years other than specified.

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TABLE 3

STRUCTURE OF PRODUCTION—ASIAN COUNTRIES

Sl. No.	Countries	GDP (millions of dollars)		Distribution of gross domestic product (per cent)							
				Agriculture		Industry		Manufacturing		Services etc.	
		1965	1986	1965	1986	1965	1986	1965	1986	1965	1986
Low-income economies											
1.	Bhutan[a]	—	210	—	—	—	—	—	—	—	—
2.	Nepal	730	2,200*	65	—	11	—	3	—	23	—
3.	Bangladesh[a]	4,380	15,460	53	47	11	14	5	8	36	39
4.	Burma[a]	1,600	8,180	35	48	13	13	9	10	52	39
5.	India	46,260	203,790	47	32	22	29	15	19	31	39
6.	China	65,590	271,880	39	31	38	46	30[b]	34[b]	23	23
7.	Pakistan	5,450	30,080	40	24	20	28	14	17	40	47
8.	Sri Lanka	1,770	5,880	28	26	21	27	17	15	51	47
9.	Afghanistan	600	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
Middle-income economies											
11.	Indonesia[a]	3,830	75,230	56	26	13	32	8	14	31	42

ASIAN DATA BANK

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12. *Philippines*[a]	6,010	30,540	26	26	28	32	20	25	46	42	
13. *Thailand*[a]	4,050	41,780	35	17	23	30	14	21	42	53	
Upper-middle-income											
14. Malaysia[a]	3,130	27,580	28	—	25	—	9	—	47	—	
15. Korea, Rep. of[a]	3,000	98,150	38	12	25	42	18	30	37	45	
16. Hong Kong	2,150	32,250*	2	0*	40	29*	24	21*	58	71*	
17. Singapore	970	17,350	3	1	24	38	15	27	73	62	
18. Iran, Islamic Rep.	6,170	—	26	—	36	—	12	—	38	—	
19. Iraq	2,430	—	18	—	46	—	8	—	36	—	
High-income oil exporters											
20. Saudi Arabia[a]	2,300	78,480	8	4	60	30	9	9	31	46	
21. Kuwait[a]	2,100	22,310	0	—	73	—	3	—	27	—	
22. United Arab Emirates	—	2,580*	—	—	—	—	—	—	—	—	
Industrial market economies											
23. Japan[a]	91,110	1,955,650	9	3	43	41	32	30*	48	56	

[a]GDP and its components are shown at purchaser values.
[b]Word Bank Estimates.
*Figures are for years other than specified.

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TABLE 4

GROWTH OF CONSUMPTION AND INVESTMENT—ASIAN COUNTRIES

Sl. No.	Countries	Average annual growth rate (per cent)					
		General government consumption		Private consumption etc.		Gross domestic investment	
		1965–80	1980–86	1965–80	1980–86	1965–80	1980–86
	Low-income economies						
1.	Bhutan	—	—	—	—	—	—
2.	Nepal	—	—	—	—	—	—
3.	Bangladesh	N.A.	N.A.	2.7	3.5	0.0	3.6
4.	Burma	N.A.	N.A.	3.5	5.7	5.3	—2.8
5.	India	6.3	8.2	2.8	5.2	4.9	4.6
6.	China	6.0	5.3	5.3	6.8	10.5	19.3
7.	Pakistan	4.7	8.9	4.7	5.0	2.6	7.5
8.	Sri Lanka	1.1	6.7	3.8	7.1	11.5	—4.9
9.	Afghanistan	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—
	Middle-income economies						
	Lower-middle-income						
11.	Indonesia	11.4	4.2	6.3	5.3	16.1	3.7

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11. Indonesia	11.4	4.2	6.3	5.3	16.1	3.7
12. Philippines	7.7	—0.3	5.0	1.7	8.5	—17.6
13. Thailand	9.3	4.0	6.7	4.2	7.5	0.8
Upper middle-income						
14. Malaysia	8.5	2.7	5.9	1.2	10.4	0.8
15. Korea, Rep. of	7.7	4.2	7.8	5.5	15.9	9.6
16. Hong Kong	7.7	5.8	9.0	6.5	8.6	—0.6
17. Singapore	10.1	8.3	7.8	4.5	14.4	3.3
18. Iran, Islamic Rep.	14.6	—	10.0	—	11.6	—
19. Iraq	—	—	—	—	—	—
High-income oil exporters						
20. Saudi Arabia	N.A.	—	20.0	—	27.5	—
21. Kuwait	N.A.	—	8.4	—	11.7	—
22. United Arab Emirates	—	—	—	—	—	—
Industrial market economies						
23. Japan	5.1	3.1	6.2	2.9	6.7	3.2

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TABLE 5

STRUCTURE OF DEMAND—ASIAN COUNTRIES

Sl. No.	Countries	Distribution of gross domestic product (per cent)											
		General government consumption		Private consumption etc.		Gross domestic investment		Gross domestic savings		Export of goods and nonfactor services		Resource balance	
		1965	1986	1965	1986	1965	1986	1965	1986	1965	1986	1965	1986
	Low-income economies												
1.	Bhutan	—	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	N.A.	8	100	84	6	19	0	9	8	13	−6	−10
3.	Bangladesh	9	8	83	90	11	12	8	2	10	6	−4	−9
4.	Burma	N.A.	14	87	74	19	15	13	12	14	—	−6	−3
5.	India	10	12	74	67	18	23	16	21	4	6	−2	−2
6.	China	15	14	59	50	25	39	25	36	4	11	1	−3
7.	Pakistan	11	12	76	81	21	17	13	7	8	12	−8	−10
8.	Sri Lanka	13	9	74	78	12	24	13	13	38	23	1	−11
9.	Afghanistan	N.A.	—	99	—	11	—	1	—	11	—	−10	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—	—	—

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Middle-income economies												
Lower middle-income												
11. Indonesia	5	12	87	64	8	26	8	24	5	21	0	−2
12. Philippines	9	8	70	73	21	13	21	19	17	25	0	6
13. Thailand	10	13	71	62	20	21	19	25	18	27	−1	4
Upper-middle-income												
14. Malaysia	15	17	61	51	20	25	24	32	42	57	4	6
15. Korea, Rep. of	9	10	83	55	15	29	8	35	9	41	−7	6
16. Hong Kong	7	8	64	65	36	23	29	27	71	112	−7	4
17. Singapore	10	12	80	48	22	40	10	40	123	—	−12	0
18. Iran, Islamic Rep.	13	—	63	—	17	—	24	—	20	—	6	—
19. Iraq	20	—	50	—	16	—	31	—	38	—	15	—
High-income oil exporters												
20. Saudi Arabia	18	40	34	43	14	27	48	18	60	36	34	−9
21. Kuwait	13	—	26	—	16	—	60	—	68	—	45	—
22. United Arab Emirates	—	—	—	—	—	—	—	—	—	—	—	—
Industrial market economies												
23. Japan	8	10	59	58	32	28	33	32	11	12	1	4

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TABLE 6

AGRICULTURE AND FOOD—ASIAN COUNTRIES

Sl. No.	Countries	Value added in agriculture (millions of current dollars)		Cereal imports (thousands of metric tons)		Food aid in cereals (thousands of metric tons)		Fertiliser consumption (thousand of grams of plant nutrient per hectare of arable land)		Average index of food production per capita (1979–81=100)
		1970	1986	1974	1986	1974–75	1985–86	1970	1985	1984–86
	Low-income economies									
1.	Bhutan	—	—	3	18	0	3	0	10	107
2.	Nepal	579	—	18	3	0	9	30	187	102
3.	Bangladesh[a]	3,636	7,254	1,866	1,214	2,076	1,287	142	592	98
4.	Burma[a]	819	3,899	26	0	9	—	34	198	124
5.	India	23,227	64,487	5,261	—	1,582	257	114	504	112
6.	China[a]	31,818	83,440	7,463	7,457	0	290	384	1,692	123
7.	Pakistan	3,352	7,357	1,274	1,909	584	384	168	736	104
8.	Sri Lanka	545	1,525	951	927	271	366	496	887	85
9.	Afghanistan	—	—	5	126	10	170	24	91	99
10.	Viet Nam	—	—	1,854	614	64	17	512	561	114

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Middle-income economies									
Lower middle-income									
11. Indonesia	4,340	19,431	1,919	1,752	301	50	119	947	117
12. Philippines[a]	1,996	8,029	817	1,094	89	181	214	358	94
13. Thailand[a]	1,851	6,962	97	191	0	89	76	210	109
Upper middle-income									
14. Malaysia[a]	1,198	—	1,017	2,067	1	0	436	1,165	121
15. Korea, Rep. of[a]	2,311	12,081	2,679	7,408	234	—	2,466	3,764	102
16. Hong Kong	62	159*	657	859	—	—	0	0	110
17. Singapore[a]	44	119	682	829	—	—	2,667	10,400	97
18. Iran, Islamic Rep.	2,120	—	2,076	4,141	—	—	76	609	99
19. Iraq	579	—	870	3,338	—	—	35	325	102
High-income oil exporters									
20. Saudi Arabia[a]	219	3,446	482	4,625	—	—	44	2,926	—
21. Kuwait[a]	8	—	101	433	—	—	0	2,333	—
22. United Arab Emirates	—	—	132	491	—	—	0	2,211	—
Industrial market economies									
23. Japan[a]	12,467	61,550	19,557	27,119	—	—	3,849	4,273	108

[a]Value added in agriculture data are at purchaser value.
*Figures are for years other than specified.

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TABLE 7

STRUCTURE OF MANUFACTURING—ASIAN COUNTRIES

Sl. No.	Countries	Value added in manufacturing (millions of current dollars)		Distribution of manufacturing value added (per cent, current prices)									
				Food and agriculture		Textiles and clothing		Machinery and transport equipment		Chemicals		Others[a]	
		1970	1985	1970	1985	1970	1985	1970	1985	1970	1985		
Low-income economies													
1.	Bhutan[b]	—	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	32	108*	—	—	—	—	—	—	—	—	—	—
3.	Bangladesh[b]	387	1,322	30	26	47	36	3	6	11	17	10	5
4.	Burma[b]	225	680	—	—	—	—	—	—	—	—	—	—
5.	India	6,960	35,597	13	11	21	16	20	26	14	15	32	32
6.	China[b]	28,794[c]	95,103	—	13	—	13	—	26	—	10	—	38
7.	Pakistan	1,462	4,949	24	34	38	21	6	8	9	12	23	25
8.	Sri Lanka	321	804	26	—	19	—	10	—	11	—	33	—
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—	—	—
Middle-income economies													
Lower middle-income													
11.	Indonesia[b]	994	11,447	—	23	—	11	—	10	—	10	—	47

12.	*Philippines*[b]	1,622	8,048	39	34	8	10	8	11	13	11	32	34	
13.	*Thailand*[b]	1,048	7,696	43	30	13	17	9	13	6	6	29	34	
	Upper middle-income													
14.	Malaysia[b]	500	—	26	21	3	6	8	28	9	10	54	40	
15.	Korea, Rep. of[b]	1,880	24,466	26	16	17	17	11	23	11	9	35	36	
16.	Hong Kong	1,013	6,739	4	5	41	39	16	21	2	2	36	33	
17.	Singapore[b]	388	4,311	12	6	5	4	28	49	4	8	51	33	
18.	Iran, Islamic Rep.	1,501	—	30	13*	20	22*	18	22*	6	7*	26	36*	
19.	Iraq	325	—	26	—	14	—	7	—	3	—	50	—	
	High-income oil exporters													
20.	Saudi Arabia[b]	372	7,586	—	—	—	—	—	—	—	—	—	—	
21.	Kuwait[b]	120	1,654*	5	12*	4	8*	1	4*	4	11*	86	65*	
22.	United Arab Emirates	—	2,715*	—	—	—	—	—	—	—	—	—	—	
	Industrial market economies													
23.	Japan[b]	73,339	395,148	8	10	8	6	33	37	11	9	40	38	

*Includes unallocable data.
[b]Value added in manufacturing data are at purchase value.
[c]World Bank estimates.
*Figures are for years other than specified.

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TABLE 8

COMMERCIAL ENERGY—ASIAN COUNTRIES

Sl. No.	Countries	Average annual energy growth rate (per cent)				Energy consumption per capita (kilograms of oil equivalent)		Energy imports as a percentage of merchandise exports	
		Energy production		Energy consumption					
		1965–80	1980–86	1965–80	1980–86	1965	1986	1965	1986
	Low-income economies								
1.	Bhutan	—	—	—	—	—	—	—	—
2.	Nepal	18.4	14.6	6.2	11.6	6	23	10	25
3.	Bangladesh	—	17.3	—	8.8	—	46	—	17
4.	Burma	8.4	5.3	4.9	5.8	39	76	4	3
5.	India	5.6	8.9	5.8	6.4	100	208	8	19
6.	China	10.0	6.0	9.8	5.6	178	532	0	2
7.	Pakistan	6.5	7.4	3.5	6.9	135	205	7	23
8.	Sri Lanka	10.4	10.7	2.2	4.1	107	139	6	23
9.	Afghanistan	15.7	2.2	5.6	14.3	30	71	8	—
10.	Viet Nam	5.3	—0.4	—2.6	1.1	106	87	—	—
	Middle-income economies								
	Lower middle-income								
11.	Indonesia	9.9	0.9	8.4	3.9	91	213	3	14
12.	Philippines	9.0	10,6	5.8	—1.9	160	180	12	17

12.	Philippines	9.0	10.6	5.8	−1.9	160	180	12	17
13.	Thailand	9.0	47.3	10.1	8.2	81	325	11	13
	Upper middle-income								
14.	Malaysia	36.9	19.5	6.7	6.6	312	762	11	4
15.	Korea, Rep. of	4.1	11.3	12.1	6.2	237	1,408	18	14
16.	Hong Kong	—	—	8.4	4.4	424	1,260	4	3
17.	Singapore	—	—	10.8	−1.5	670	1,851	17	22
18.	Iran, Islamic Rep.	3.6	5.2	8.9	2.6	537	958	0	—
19.	Iraq	6.2	−0.8	7.4	5.2	399	734	0	—
	High-income oil exporters								
20.	Saudi Arabia	11.5	−15.0	7.2	5.7	1,759	3,336	0	1
21.	Kuwait	−1.6	−1.1	2.1	2.8	—	4,080	0	0
22.	United Arab Emirates	14.7	−3.1	36.6	5.7	108	5,086	—	—
	Industrial market economies								
23.	Japan	−0.4	5.3	6.1	1.5	1,474	3,186	19	18

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TABLE 9

GROWTH OF MERCHANDISE TRADE—ASIAN COUNTRIES

Sl. No.	Countries	Merchandise trade (millions of dollars)		Average annual growth rate (per cent)				Terms of trade (1980=100)	
				Exports		Imports			
		Exports 1986	Imports 1986	1965–80	1980–86	1965–80	1980–86	1984	1986
	Low-income economies								
1.	Bhutan	—	—	—	—	—	—	—	—
2.	Nepal	142	459	−2.3	6.7	5.8	−0.9	95	69
3.	Bangladesh	880	2,701	—	5.6	—	3.3	109	109
4.	Burma	299	617	−2.1	−0.2	−5.8	−8.8	76	62
5.	India	11,741[a]	16,269[a]	3.7	3.8	1.6	3.6	109	127
6.	China	31,148	43,172	5.5	11.7	8.0	16.8	97	83
7.	Pakistan	3,384	5,377	4.3	6.2	0.4	3.8	92	103
8.	Sri Lanka	1,215	1,948	0.5	6.4	−1.2	3.0	118	96
9.	Afghanistan	552	1,404	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—
	Middle-income economies								
	Lower middle-income								
11.	Indonesia	14,824	13,371	9.6	2.0	14.2	−1.0	*96*	*64*
12.	Philippines	4,771	5,394	4.7	−1.7	*2.9*	*−6.0*	*104*	*101*

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13. Thailand	8,794	9,178	8.5	9.2	4.1	2.0	82	83
Upper middle-income								
14. Malaysia	13,874	10,829	-4.4	10.2	2.9	5.2	86	64
15. Korea, Rep. of	34,715	31,584	27.3	13.1	15.2	9.3	106	111
16. Hong Kong	35,440	35,366	9.5	10.7	8.3	7.9	100	108
17. Singapore	22,495	25,511	4.7	6.1	7.0	3.6	102	101
18. Iran, Islamic Rep.	13,435[b]	11,635[b]	—	—	—	—	—	—
19. Iraq	—	10,190	—	—	—	—	—	—
High-income oil exporters								
20. Saudi Arabia	20,085	19,112	8.8	−19.2	25.9	−7.7	97	46
21. Kuwait	7,383	5,845	−1.9	−3.8	11.8	−3.1	97	47
22. United Arab Emirates	9,900	7,447	10.9	−1.0	20.5	−4.0	96	53
Industrial market economies								
23. Japan	210,757	127,553	11.5	6.4	8.7	3.5	108	156

[a]World Bank Estimates.
[b]Figures are for years other than specified.

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TABLE 10

STRUCTURE OF MERCHANDISE EXPORTS—ASIAN COUNTRIES

Sl. No.	Countries	Percentage share of merchandise exports									
		Fuels, minerals and metals		Other primary commodities		Machinery and transport equipment		Other manufactures		Textiles and clothing	
		1965	1986	1965	1986	1965	1986	1965	1986	1965	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	—	—	—	—	—	—
2.	Nepal	0	2	78	31	0	2	22	66	—	43
3.	Bangladesh	—	1	—	25	—	0	—	73	—	57
4.	Burma	5	3	94	84	0	9	0	4	0	0
5.	India	10	15	41	23	1	10	48	52	36	18
6.	China	6	14	48	22	3	16	43	48	—	24
7.	Pakistan	2	1	62	31	1	3	35	65	29	51
8.	Sri Lanka	2	7	97	52	0	2	1	39	0	30
9.	Afghanistan	—	47	87	46	—	0	13	7	13	0
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	43	58	53	21	3	3	1	19	0	4

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11. Indonesia	45	58	53	21	3	3	1	19	0	4
12. Philippines	11	14	84	26	0	6	6	55	1	7
13. Thailand	11	4	84	54	0	9	4	33	0	15
Upper Middle-income										
14. Malaysia	35	26	59	38	2	26	4	10	0	—
15. Korea, Rep. of	15	3	25	6	3	33	56	58	27	25
16. Hong Kong	2	2	11	6	6	21	81	71	43	35
17. Singapore	21	21	44	12	11	38	24	30	6	5
18. Iran, Islamic Rep.	88	—	8	—	0	—	4	—	4	—
19. Iraq	95	—	4	—	0	—	1	—	0	—
High-income oil exporters										
20. Saudi Arabia	98	90	1	1	1	4	1	5	0	—
21. Kuwait	98	87	1	1	1	4	0	7	0	—
22. United Arab Emirates	99	78	1	4	0	1	0	18	—	—
Industrial market economies										
23. Japan	2	1	7	1	31	64	60	34	17	3

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TABLE 11

STRUCTURE OF MERCHANDISE IMPORTS—ASIAN COUNTRIES

Sl. No.	Countries	Percentage share of merchandise imports									
		Food		Fuels		Other primary commodities		Machinery and transport equipment		Other manufactures	
		1965	1986	1965	1986	1965	1986	1965	1986	1965	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	—	—	—	—	—	—
2.	Nepal	22	10	5	11	14	6	37	22	22	51
3.	Bangladesh	—	27	—	6	—	11	—	19	—	37
4.	Burma	15	6	4	1	5	2	18	43	58	48
5.	India	22	10	5	14	14	10	37	22	22	44
6.	China	—	7	—	1	—	5	—	31	—	56
7.	Pakistan	20	18	3	14	5	7	38	32	34	29
8.	Sri Lanka	41	16	8	14	4	2	12	29	34	39
9.	Afghanistan	17	10	4	1	1	1	8	24	69	63
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	6	4	3	14	2	4	39	39	50	38
12.	Philippines	20	8	10	15	7	5	33	33	30	51

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11. Indonesia	6	4	3	14	2	4	39	39	50	38	
12. Philippines	20	8	10	15	7	5	33	22	30	51	
13. Thailand	6	5	9	12	6	8	31	34	49	40	
Upper-middle-income											
14. Malaysia	25	10	12	5	10	4	22	51	32	30	
15. Korea, Rep. of	15	6	7	16	26	15	13	34	38	30	
16. Hong Kong	25	9	3	3	13	6	13	23	46	59	
17. Singapore	23	9	13	20	19	5	14	37	30	30	
18. Iran, Islamic Rep.	16	—	0	—	6	—	36	—	42	—	
19. Iraq	24	—	0	—	7	—	25	—	44	—	
High-income oil exporters											
20. Saudi Arabia	29	17	1	1	5	2	27	34	38	46	
21. Kuwait	21	17	1	0	7	3	33	38	39	41	
22. United Arab Emirates	15	11	3	7	7	3	34	37	41	42	
Industrial market economies											
23. Japan	22	17	20	31	38	17	9	11	11	24	

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TABLE 12

ORIGIN AND DESTINATION OF MANUFACTURED EXPORTS—ASIAN COUNTRIES

Sl. No.	Countries	Manufactured exports (millions of dollars)		Destination of manufactured exports (percentage of total)							
				Industrial market economies		Nonreporting non-member economies		High income oil exporters		Developing economies[a]	
		1965	1986	1965	1986	1965	1986	1965	1986	1965	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	—	—	—	—	—	—
2.	Nepal	13	95	—	65	—	7	—	0	—	28
3.	Bangladesh	—	636	—	67	—	4	—	1	—	28
4.	Burma	1	38	73	43*	1	0	0	7*	26	51*
5.	India	828	7,234	55	59*	11	10*	2	0	32	24*
6.	China	1,021	19,997	—	32*	—	3*	—	2*	—	62*
7.	Pakistan	190	2,285	40	65	7	4	2	11	52	19
8.	Sri Lanka	5	505	59	89*	5	0	0	1*	36	10*
9.	Afghanistan	11	40	98	—	0	—	0	—	2	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	27	2,961	25	50*	2	0	0	4*	73	46*

11. Indonesia	27	2,961	25	50*	2	0	0	4*	73	46*		
12. Philippines	43	2,808	93	74	0	0	0	1	7	25		
13. Thailand	30	3,944	39	60	0	0	0	8	61	32		
Upper-middle-income												
14. Malaysia	75	4,974	17*	69*	0	0	2	2*	81	29*		
15. Korea, Rep. of	104	31,931	68	75	0	0	0	5	32	20		
16. Hong Kong	995	32,645	71	60	0	0	1	2	28	38		
17. Singapore	338	14,672	9	55	0	1	3	4	88	40		
18. Iran, Islamic Rep.	58	—	61	—	0	—	10	—	28	—		
19. Iraq	8	—	—	—	—	—	—	—	—	—		
High-income oil exporters												
20. Saudi Arabia	19	1,818	31	—	0	—	17	—	52	—		
21. Kuwait	17	849	18	—	0	—	33	—	49	—		
22. United Arab Emirates	0	1,831	—	—	—	—	—	—	—	—		
Industrial market economies												
23. Japan	7,704	203,896	47	62	3	2	2	3	49	33		

[a]Includes unallocable data.
*Figures are for 1983, 1984 or 1985.

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TABLE 13

BALANCE OF PAYMENTS AND RESERVES—ASIAN COUNTRIES

Sl. No.	Countries	Current account balance (millions of dollars)		External financing requirement (millions of dollars)		Receipts of workers' remittances (millions of dollars)		Net direct private investment (millions of dollars)		Gross international reserves		
										Millions of dollars		In months of import coverage
		1970	1986	1970	1986	1970	1986	1970	1986	1970	1986	1986
	Low-income economies											
1.	Bhutan	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	8[a]	−112	−16[a]	−182	—	—	—	—	94	146	3.2
3.	Bangladesh	−114[a]	−538	−234[a]	−1,084	—	586	—	2	—	430	1.9
4.	Burma	−63	−210[a]	−81	−310[a]	—	—	—	—	98	131	2.0
5.	India	−386[a]	−3,604[a]	−592[a]	−3,874[a]	113[a]	2,000[a]	—	208[a]	1,023	10,480	6.0
6.	China	−81[a]	−7,034	−81[a]	−7,158	—	208	—	1,425	—	16,417	5.2
7.	Pakistan	−667	−788	−705	−1,286	86	2,632	23	159	195	1,465	2.2
8.	Sri Lanka	−59	−417	−71	−592	3	324	0	29	43	377	1.8
9.	Afghanistan	—	−556	—	−748	—	—	—	—	49	636	5.6
10.	Viet Nam	—	—	—	—	—	—	—	—	243	—	—
	Middle-income economies											
	Lower middle-income											
11.	Indonesia	−310	−4,004	−376	−4,099	—	71	83	258	160	5,263	3.1

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12. Philippines	−48	996	−138	790	—	163	−29	127	255	2,611	3.9
13. Thailand	−250	249	−296	88	—	—	43	262	911	3,777	3.8
Upper middle-income											
14. Malaysia	8	−295	2	−309	—	—	94	528	667	6,942	5.0
15. Korea, Rep. of	−623	4,617	−706	4,606	—	—	66	325	610	3,444	1.1
16. Hong Kong	225[a]	1,552[a]	225[a]	1,552[a]	—	—	—	282[a]	—	—	—
17. Singapore	−572	478	−585	492	—	—	93	582	1,012	12,939	5.4
18. Iran, Islamic Rep.	−507	—	−511	—	—	—	25	—	217	—	—
19. Iraq	105	—	104	—	—	—	24	—	472	—	—
High-income oil exporters											
20. Saudi Arabia	71	−10,360	150	−7,408	—	—	20	964	670	20,120	6.3
21. Kuwait	853[a]	6,160	918[a]	6,342	—	—	—	−288	209	6,494	8.6
22. United Arab Emirates	75[a]	6,486[a]	68[a]	2,616[b]	—	—	4[a]	—	—	3,689	5.7
Industrial market economies											
23. Japan	1,980	85,831	2,160	87,301	—	—	−260	−14,250	4,876	51,727	3.6

[a] World Bank estimates

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TABLE 14
TOTAL EXTERNAL DEBT—ASIAN COUNTRIES

Sl. No.	Countries	Long-term debt (millions of dollars)				Use of IMF credit (millions of dollars)		Short term debt (millions of dollars)		Total external debt (millions of dollars)	
		Public and publicly guaranteed		Private non-guaranteed							
		1970	1986	1970	1986	1970	1986	1970	1986	1970	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	0	0	—	—	—	—
2.	Nepal	3	711	0	0	0	15	—	21	—	747
3.	Bangladesh	0	7,282	0	0	0	461	—	125	—	7,868
4.	Burma	106	3,664	0	0	17	47	—	55	—	3,766
5.	India	8,018	31,913	100	2,598	10	4,274	—	2,303	—	41,088
6.	China	—	17,193	0	0	0	731	—	4,800	—	22,724
7.	Pakistan	3,064	11,764	5	30	45	1,036	—	790	—	13,620
8.	Sri Lanka	317	3,448	—	96	79	286	—	289	—	4,119
9.	Afghanistan	—	—	—	—	15	0	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies: Lower middle-income										
11.	Indonesia	2,443	31,901	461	3,828	139	51	—	6,309	—	42,090
12.	Philippines	625	19,828	919	1,794	69	1,173	—	5,378	—	28,172
13.	Thailand	324	11,023	402	3,108	0	988	—	2,840	—	17,959
	Upper middle-income										
14.	Malaysia	390	16,759	50	2,891	0	0	—	—	—	—
15.	Korea, Rep. of	1,840	29,108	175	5,196	0	1,549	—	9,256	—	45,109
16.	Hong Kong	—	—	—	—	0	0	—	—	—	—
17.	Singapore	152	2,120	248	—	0	0	—	268	—	—
18.	Iran, Islamic Rep.	—	—	—	—	—	—	—	—	—	—
19.	Iraq	—	—	—	—	0	0	—	—	—	—

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INDUSTRIALIZATION OF THE REPUBLIC OF KOREA AND ITS RELATION WITH THE UNITED STATES— SIMULTANEOUS EQUATIONS APPROACH

KIYOSHI ABE

Department of Law and Economics
Chiba University, 1–33 Yayoi cho, Chiba city, Japan 260

1. Introduction

Many studies on trade and industrialization have found that both are positively related. Some have found trade to be an engine of growth, while others regard it only as a handmaiden of growth. Lewis (1980), for example, regards trade as an engine of growth. Riedel (1984), for instance, supports the metaphor of trade as a handmaiden of growth.

Common to these studies is the one-way causal relationship, with the GDP depending on autonomous exports in single equations. Riedel (1984), however, concluded that trade and growth are properly understood as Interdependent aspects of a single, evolutionary process. The causal relations need to be two-way. The interrelated aspects of industrialization can best be analyzed in terms of simultaneous rather than single equations. The reason for the frequent usage of single equations lies in the difficulty in constructing adequate models of simultaneous equations. Studies by Chen (1984) and Salvadore (1983), however, have encouraged simultaneous equations approach. This study is a tentative attempt in this direction. Unique here is an inclusion of a trade interdependence coefficient; stress is placed on the interaction between the US and an Asian economy (Republic of Korea). The period covered by the data is 1960–1985.

2. Theoretical Model

Notations: Y = GDP, YP = GDP Deflator, X = Exports, XP = Export Prices, M = Imports, MP = Import Prices, INV = Investment, INVP = Investment Deflator, IP = Industrial Production, WPIKOR = Wholesale Price Index of the ROK, WPIW = Wholesale Price Index of the World, YW = GDP of the World, EXR = Market Exchange Rate (won per US $), USCACKOR = US Comparative Advantage Coefficient with the ROK, CAPIMP = Capital Import, USTICKOR = US Trade Interdependence Coefficient with the ROK.

The simple econometric model here is made up of following five equations:

$$\text{Real GDP} = Y/YP = f(X/XP,\ M/MP,\ INV/INVDEF,\ IP) \qquad (1)$$
$$(+,\ ?,\ +,\ +)$$

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Signs below the explanatory variables indicate theoretically expected signs. The aggregate growth theory usually specifies the aggregate production as a function of capital and labor inputs. This, however, is too simple to deal with a complex phenomenon of industrialization with foreign trade. The production function of Salvadore (1983) includes investment, industrial output and exports. The real GDP here is likewise assumed to be a function of real exports, real imports, real investment and the index of industrial production. The sign of the import variable remains to be seen; if it were positive, then the import supply would be implied, while if it were negative, the import demand would be meant.

$$\text{Real Exports} = X/XP = f(\underset{+}{IP}, \underset{-}{WPIKOR/WPIW}, \underset{+}{EXR}, \underset{+}{YW}) \qquad (2)$$

The exports are here endogenous, and explained by industrial production (supply capacity), relative wholesale prices, market exchange rate and real GDP of the world. Salvadore's export function consists of relative consumer prices, real GDP of the world, and industrial output.

$$\text{Real Imports} = M/MP = f(\underset{+}{Y/YP}, \underset{-}{EXR}, \underset{-}{WPIKOR/WPIW}) \qquad (3)$$

Real imports are here endogenous, consisting of real GDP, exchange rate and relative wholesale prices.

$$\text{Real Investment} = INV/INVP = f(\underset{+}{Y/YP}, \underset{+}{X/XP}, \underset{+}{CAPIMP}) \qquad (4)$$

Real investment here is endogenously determined by real GDP, real exports and capital import, although Ezaki (1979) specifies Korean investment only as a function of Y.

$$USTICKOR = f(\underset{-}{USCACKOR}, \underset{?}{IP}, \underset{?}{X}, \underset{?}{M}, \underset{?}{Y}) \qquad (5)$$

The US trade interdependence coefficient with the ROK is defined as the ratio of {the US exports to the ROK plus the US imports from the ROK} to {the US GDP plus the GDP of the ROK}. This is a feature of the model here and is assumed to be related to USCACKOR, industrial production, total exports, total imports and the GDP. The signs remain to be seen. The USCACKOR is defined as the ratio of {the US exports to the ROK minus the US imports from the ROK} to {the US exports to the ROK plus the US imports from the ROK}.

3. Estimated Model

The OLS estimations for the 1960–1985 data are shown below. The explanatory variables that failed to meet the above sign conditions have been dropped. RR = coefficient of determination, SE = standard error, DW = Durbin-Watson ratio, ( ) = t-value, * = significant at 95% confidence level.

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$$\text{Real GDP} = Y/YP = \underset{(11.1)}{84.88} + \underset{(1.27)}{0.76}X/XP - \underset{(-0.60)}{0.30}M/MP + \underset{(2.01)}{1.25}INV/WPIKOR + \underset{(0.55)}{1.01}IP \quad (1)$$

$$RR = 0.98,\ SE = 22.01,\ DW = 0.41$$

$$\text{Real Exports} = X/XP = \underset{(-3.31)}{-18.8001} + \underset{(12.56)}{1.14805}IP + \underset{(0.79)}{0.01734}EXR + \underset{(3.41)}{0.22072}YW \quad (2)$$

$$RR = 0.99,\ SE = 7.24,\ DW = 2.5$$

$$\text{Real Imports} = M/MP = \underset{(-5.72)}{-60.72} + \underset{(14.94)}{0.56}Y/YP \quad (3)$$

$$RR = 0.90,\ SE = 27.5,\ DW = 0.20$$

$$\text{Real Investment} = INV/INVP = \underset{(-2.35)}{-18.03} + \underset{(4.08)}{0.29}Y/YP + \underset{(1.09)}{0.15}X/XP + \underset{(0.37)}{0.00}CAPIMP \quad (4)$$

$$RR = 0.97,\ SE = 9.32,\ DW = 1.02$$

$$USTICKOR = \underset{(5.39)}{0.0754} - \underset{(-3.61)}{0.0006}USCACKOR + \underset{(5.93)}{0.0032}IP + \underset{(0.62)}{0.000004}X - \underset{(-3.08)}{0.00002}M + \underset{(0.70)}{0.000002}Y \quad (5)$$

$$RR = 0.98,\ SE = 0.02,\ DW = 1.074$$

All the sign conditions were met in the simultaneous five equations. More than half of the regression coefficients are significant. The total test was passable with the average error below 10% for most of the five endogenous variables. The overall result looks fairly satisfactory in view of the small size of the model, although it leaves much to be desired.

4. Simulations

TABLE 1
SIMULATION RESULTS FOR KOREA
Assumptions (for the period 1960–1985)

Case 1 The industrial production increases by 10%.
Case 2 The exchange rate (won per US $) depreciates by 10%.
Case 3 Both Case 1 and Case 2 take place.
Case 4 The real GDP of world increases by 10%.

	USTICKOR	GDP (Kor)	Inv (Kor)	Exp (Kor)	Imp (Kor)
Case 1	+0.69%	+5.00%	+5.34%	+6.04%	+3.07%
Case 2	+0.07%	+0.23%	+0.34%	+0.50%	+0.18%
Case 3	+0.77%	+5.31%	+5.91%	+6.72%	+3.50%
Case 4	+0.08%	+0.17%	+0.21%	+0.10%	+0.38%

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INTERPRETATIONS

Case 1 Suppose the actual industrial production had increased by 10% during the observation period (1960–1985). The simulation result (total test) has shown that the export supply would on average have gone up by 6%, investment by 5%, imports by 3% and the GDP by 5%. The trade interdependence coefficient of the US with the ROK would have increased by 0.8%. Both exports and imports increase with Korean industrialization.

Case 2 Next suppose the market exchange rate (won per US $) had depreciated by 10% through the period. The Korean exports would have risen by 0.5% pushing the GDP by 0.2% and the investment by 0.3%. The trade interdependence coefficient with the US would have also gone up 0.07%, due to active transactions between the US and the ROK. The exports serve as one of the factors conducive to the increase of the GDP. The export increase through the won depreciation is important as a handmaiden rather than an engine of growth.

Case 3 Suppose Case 1 and Case 2 take place simultaneously. The results are more than mere additions of both cases, due to repercussive multiplier effects.

Case 4 Assume further that the real GDP of the world had gone up 10%. This would have given favorable impact on the USTICKOR. The GDP would have increased 0.2%.

SOME POLICY IMPLICATIONS

The increasing industrial production based on the Korean strategic economic policy does have a favorable impact on the trade interdependence between the USA and the ROK.

In the first three cases, the increase of exports exceeds that of imports, suggesting export-led rather than investment-led or import-led growth in Korean industrialization.

5. Direct Relationship Among the USTICKOR, USCACKOR and IP

$$\underset{}{\text{USTICKOR}} = \underset{(10.46)^{*}}{0.10955} - \underset{(-6.25)^{*}}{0.000996}\text{USCACKOR} + \underset{(17.17)^{*}}{0.002047}\text{IP} \quad (6)$$

$$\text{RR} = 0.9800,\ \text{SE} = 0.02,\ \text{DW} = 0.592$$

This regression is addressed to the direct connection of the Korean idustrialization with the US-Korea relations. All the explanatory variables have been treated as exogenous in the model. Korean industrialization (increase of industrial production), like equation (5), does contribute to that US-Korea trade interdependence which is negatively related to the US comparative coefficient with the ROK. The increasing trade interdependence with the ROK means to the USA the increasing comparative disadvantage. This is in line with the finding of Park (1985, p. 323) who

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found the strong gain of the Korean RCA (revealed comparative advantage) against the USA in a few categories of heavy and chemical industries. Figure 1 on the USTICKOR and USCACKOR shows this process dramatically. It is the reality that the USA has been losing its comparative advantage against the ROK in certain industrial goods.

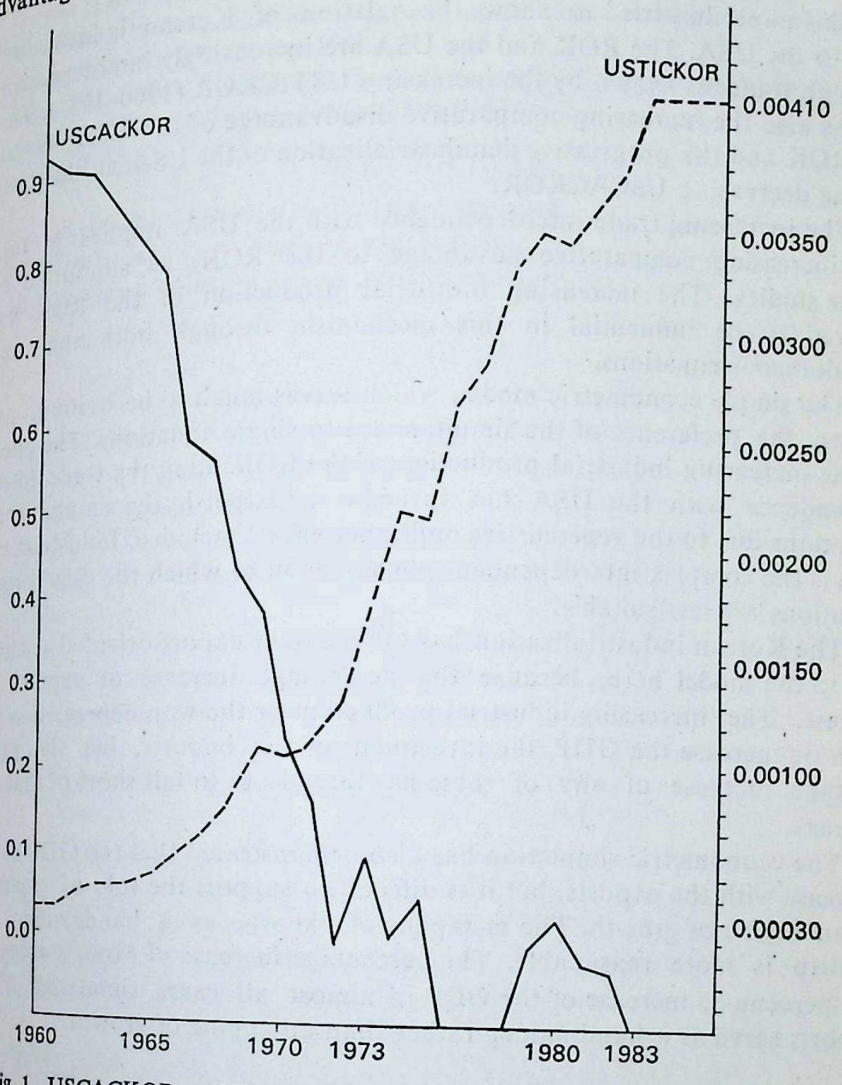

Fig. 1 USCACKOR an USTICKOR (US Comparative Advantage with the ROK and US Trade Interdependence with the ROK)

The shortcoming of this kind of single equation is that it fails to consider repercussion effects among the interrelated variables. The autonomous 10% increase of IP, for instance, results in 0.02% increase of the USTICKOR according to this regression (6) and in 0.03% increase according to (5), but in 0.7% increase according to Table 1; the difference is due to repercussive multiplier effects which usual single-equations fail

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to consider. The simultaneous equations thus reveal interrelated realistic aspects of industrialization. This is why the simultaneous equations approach is preferable to the single equations.

6. Conclusion

This paper has tried to show the relation of Korean industrialization to the USA. The ROK and the USA are increasingly interdependent through trade, as shown by the increasing USTICKOR (1960–1985). This means also the increasing comparative disadvantage of the USA against the ROK and the progressive deindustrialization of the USA, as illustrated by the decreasing USCACKOR.

The increasing trade interdependence with the USA implies in turn the increasing comparative advantage to the ROK, as supported by other studies. The increasing industrial production of the ROK has proved to be influential in this mechanism through both single and simultaneous equations.

The simple econometric model, which leaves much to be desired, has shown the preference of the simultaneous to single equations. The effect of the increasing industrial production of the ROK upon the trade interdependence with the USA has turned to be larger in the simultaneous equations due to the repercussive multiplier effects included. Industrialization is the complex interdependent phenomenon to which the usual single equations are less suitable.

The Korean industrialization has proved to be export-oriented according to the model here, because the percentage increase of exports is largest. The increasing industrial production or the won depreciation or both do increase the GDP, the investment or the imports, but the percentage increase of any of these has turned out to fall short of that of exports.

The econometric simulation has also demonstrated that the GDP does increase with the exports, but it is difficult to support the role of exports as an engine of growth. The metaphor of exports as a handmaiden of growth is more reasonable. The percentage increase of exports exceeds the percentage increase of the GDP in almost all cases simulated. The exports serve as a handmaiden rather than an engine of growth.

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THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS AND THE THIRD WORLD INTERESTS

RAMESHWAR TANDON

Institute for Social and Economic Change, Bangalore–72 India

The world economy is in the midst of what has been discussed as "the worst economic situation since the 1930s". With its adverse effects on the world walfare for the last several years, the world economy has been slowing down and the present crisis cannot be explained away as a cyclical phenomenon.

During the 1950s and 1960s, the volume of world trade and also the developed market economies grew at unprecedented rate. Between 1963 and 1973 the world output grew at average annual rate of 6 per cent but only half as fast during 1974–86 period. From 1967 to 1978 the volume of world trade grew at average annual rate of 7.2 per cent, compared with 4.5 per cent for world output. But since mid-1970s, the trend towards trade liberalization seems to have been reversed, leading to general slow-down, rising unemployment and high inflation rates. While the average annual rate of growth of world output declined from 4.5 per cent over 1967–78 period to 2.4 per cent for 1980–87, the rate of growth of world trade fell from 7.2 to 2.4 per cent.

The emergence of "new protectionism" during a decade of recession and high levels of unemployment, shows that the threat to world trade is not temporary. Several recent studies established that there is a growing incidence of protection in developed countries and the world trading system has become more discriminatory against the LDCs, moving away from multilateralism and the earlier system of tariff-based protective measures is being progressively replaced with non-transparent and quantitative protective measures. Really, it is very difficult to assess the impact of these barriers on trade-flows due to the nature of recent measures.

Some analysts even suggest that the world trading system is already resembling a collection of regional blocks, each revolving around a developed market economy.[1]

[1]See K. Kihl and J. Lutz, *World Trade Issues*, Praeger Publisher, 1985.

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As was underlined by several recent UNCTAD studies, these 'new' barriers against manufactures exports from the LDCs have been much higher than against the developed countries. Hence compared to their potential, the trade performance of the LDCs has continuously weakened. This has been particularly marked during the 1980s when a steady decline in terms of trade of LDCs was observed.

Tariff Barriers to Trade

While the industrial countries have put themselves behind solid protective walls against agricultural imports and also compete with producers from the LDCs in third-markets by subsidising agricultural exports, there has also been an erosion of the discipline of the multilateral trading system and an abandonment of the commitment to some of its guiding principles. Several recent events highlighted these trends e.g., the codes of behaviour negotiated at the Tokyo Round of negotiations, the renegotiation of the multifibre arrangement and the recent GATT ministerial meeting.

Since its inception, the GATT discipline was primarily for the manufactured products and the agricultural sector was given 'special' treatment and all these distortions had various adverse implications for the LDCs' exports.

The 'new protectionism' relies more on various non-tariff barriers than on traditional import tariff as a measure to increased protection.[2] This protectionism has increasingly focussed towards the industrial and agricultural exports of the LDCs. Hence it is obvious that what is at stake is the access to the markets of 1980s. The most important feature of the present situation is that in the inter-war period, the quantitative restrictions were widespread and random; today, by contrast, they cluster in particular areas. "The measures themselves, their methods of administration and articulation of both day-to-day and longer-term policy in the areas, form coherent systems of industrial protection".[3]

The Tokyo Round negotiations brought out the rise in the number of non-tariff barriers and various codes were also negotiated which could not regulate these new measures. Now it is feared that the proliferation of these measures might lead to sharp retaliation and also decline in world trade.

Tables 1 and 2 below show the recent position about these non-tariff measures.

[2]See Max Corden, *The Revival of Protectionism*, New York, The Group of Thirty, 1984.

[3]Jan Tumlir, "International Economic Order—Can the trend be reversed?", *The World Economy*, March 1982.

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TABLE 1

EXTENT OF INDUSTRIAL COUNTRIES NTB ON IMPORTS FROM INDUSTRIAL AND FROM DEVELOPING COUNTRIES

Product category	Percent covered by NTBs			
	Value of import from		Number of categories from	
	Industrial countries	Developing countries	Industrial countries	Developing countries
All	77	79	11	21
Agricultural	44	33	42	35
Fuels+Ores	18	10	73	11
Industrial	14	21	7	18
Textiles	25	62	20	58
Steel	50	46	21	21
Footwear	2	4	14	14
Electrical machines	10	7	5	8
Vehicles	30	3	6	10

Source: M. Finger and S. Laird (UNCTAD, Geneva), Mimeo.

TABLE 2

IMPORT COVERAGE INDICES OF NTBs APPLIED BY SELECTED DMECs 1981–1985

	1981	1982	1983	1984	1985
All products all NTBs	100	104	105	72	74
Hard core NTBs	100	104	106	109	110
All produce except fuels all NTBs	100	108	110	114	119
Hard core NTB	101	106	109	114	115

Source: M. Finger and S. Laird.
Hard core NTBs include quantitative restrictions, voluntary export restraints and measures to enforce decreed domestic prices, monitoring and surveillance measures and various tariff-type measures are excluded.

The reaction of LDCs to new protectionism

Now an important empirical question is how much of recent protection is due to low levels of aggregate demand and how much is due to growing rigidities in factor markets. Really the developed countries have shown reduced flexibility during the 1970s and early 80s. Hence protectionism was suggested as a way of compensating for rigidities of

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national economies and also of mitigating high levels of unemployment.[4] Really since the conclusion of the Tokyo round, there has been no significant improvement in the basic conditions which have led to the current crisis in the world trading system.

While the pressures for protectionist measures are still very strong, the governments continued to seek through various bilateral arrangements to reduce frictions. The post-Tokyo Round tariffs have now been implemented in all the developed countries and tariffs on a number of items have been cut beyond the reductions agreed. But the system of "tariff escalation" according to the degree of processing has been harmful for the LDCs trying to diversify their export structure.

In 1987, MFN tariffs in developed countries were practically unchanged and some LDCs also liberalised the tariff policy e.g., the Republic of Korea, Taiwan, Nigeria, Ghana, Indonesia, Morocco, Mali, Mauritius. Recently the OECD reported that the share of the non-oil LDCs in the developed countries' total imports of manufactures rose from 7.4 per cent in 1973 to 72.8 per cent in 1983. The penetration of imports from some NICs led to scctoral protection against manufactures exports of NICs on industry specific basis.

Between 1960 and 1980, the NICs attained average annual GDP growth rate of 6.7 per cent, compared to 4.3 per cent in developed countries. While the extent of progress in the NICs is obscured by the debt burden, recently it was also suggested that by 1995, the NICs in Latin America, Korea and Yugaslovia may attain Japan's 1970 per capita income and Taiwan may exceed Japan's 1975 per capita income, while Hong Kong and Singapore may reach Japan's 1980–85 per capita income.[5]

These developments over the last few years led to strengthening of various restrictions on trade in several commodities exported by the LDCs. Hence as long as the sectoral view dominates the trade policy of developed countries, "only a progressive tightening of the existing system of industrial protection can be expected, a development that will further multiply economic difficulties for the contries concerned".[6]

Now non-tariff barriers have become more important than tariffs and due to various reasons, these measures do not lend themselves to trade liberalizing negotiations. While governments are not always aware of the prevailing non-tariff measures, no comprehensive inventory of these measures are available. Markets are protected with various administrative procedures and safety requirements etc. The recent GATT inventory on quantitative restrictions shows that even reporting for inclusion in the inventory requires knowledge of techniques of commercial policy.[7] The

[4]See A. Maria Costa in *World Development*, October, 1984.
[5]See OECD, costs and Benefits of Protection, Paris 1985.
[6]Jan Tumlir, *op. cit.*, p. 31.
[7]GATT, Inventory of Non-tariff Measures, *Industrial* Products (Sept. 1982).

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developed countries often resort to quotas, discretionary import licences, automatically issued licences etc.

Past experience shows that the GATT has not prevented growth of various non-tariff barriers and over 800 separate types of NTB have been identified by the GATT. Due to complex problems involved, various resolutions calling for a halt to new protection and also trade pledges of the OECD ministers and the resolutions at the Belgrade conference were passed.

In the recent study of UNCTAD, it was found that during 1987 no significant progress was made towards trade liberalisation in spite of reviewed commitments on 'stand still' and 'roll back'. The non-tariff measures which were due to expire on 1st January 1987 or in course of the year, were in all cases renewed specially in the steel and textile sectors. Various new trade restrictions were introduced e.g., anti-dumping and counterveiling duties and so called "grey area" measures, such as voluntary export restraints and orderly marketing arrangements. Also there was a large reduction of anti-dumping cases initiated in the U.S. but there was a sharp increase in the number of anti-dumping action initiated in the EEC against the LDCs.

Recently the OECD reported that the most important effect of restrictions has been to accelerate the product and geographical diversification of manufactures. The new protectionism also seriously affected the geographical pattern of LDCs' exports. Some NICs diverted a large share of their exports to less restrictive countries and some other NICs set up production facilities in foreign countries with better access to industrial markets, but with low wage cost.[8]

In view of these trends over the last several years, the LDCs' export earnings have been adversely affected; also they had to bear a significant burden of adjustment cost of making changes. It was recently suggested that the developed country protection in the long-run might change the product and country composition of LDCs' trade rather than reduce the volume.[9]

But the recent experience shows that several LDCs resorted to programmes of reduced imports and increased production of import substitutes. Moreover the prospect of a simultaneous rise in exports accompanying a rise in imports is now more uncertain.

Incidence of Trade Barriers

For the last several years, there is a marked trend in the use of various protectionist devices, along with significant hardening in commercial policy due to reliance on direct price and quantity controls. Also

[8]OECD, 1985, *op. cit.*,

[9]See here G. K. Hellener in *Trade in Development, UNCTAD Review*, 1979.

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there appears to be increasing government involvement in various sectors affecting the working of the markets. The sectoral protectionism by non-tariff measures has changed the amount of labour and capital employed in particular industries.

Several quantitative restrictions have been bilaterally negotiated by the GATT member countries. These new restrictions are now called 'voluntary' export restraints, 'orderly' marketing arrangements with a view to avoid obligation of the GATT article XIX about restrictions on imports causing serious injury. More and more resort has been taken to these VERs in various sectors besides textiles and clothing e.g. motor vehicles, steel, T.V. sets, footwear, head gear etc. The multifibre arrangement concluded within the GATT also could not check the protectionist trends.

Table 3 below shows recent position about various non-tariff measures

TABLE 3

FREQUENCY OF LDCs' NON-TARIFF BARRIERS BEING APPLIED IN BRANCHES OF THE MANUFACTURING INDUSTRY, FIRST HALF OF 1982 (AVERAGE SHARE, IN PERCENTAGES)

Product groups[b]	EEC	US	Japan	Industrialised countries[c]
Products of the chemical and allied industries	13.4	9.4	14.5	11.2
Artificial resins and plastic materials	15.5	17.4	8.7	15.2
Raw hides and skins, leather, furskins	9.8	10.5	15.8	10.8
Wood and articles of wood; manufactures of straw	12.9	3.2	—	9.9
Papermaking material, paper+paperboard	5.2	6.7	—	7.4
Textiles and textile articles	79.9	25.2	7.8	44.6
Footwear, head gear, prepared feathers	24.3	70.0	5.0	23.1
Articles of stone, ceramic products	19.0	14.3	—	15.7
Pearls, precious and semiprecious stones	14.3	—	5.9	13.4
Base metals and articles of base metal	20.9	20.2	2.4	13.5
Machinery and mechanical appliances	11.5	9.8	2.2	11.5
Vehicles, aircraft, vessels	17.6	18.2	21.2	17.0
Optical, photographic, cinematographic art	13.4	3.8	1.9	8.0
Arms and ammunition, parts thereof	20.4	42.9	100.0	25.4
Miscellaneous manufactured articles	11.2	5.8	3.1	8.8

[a]Without (automatic or discretionary) licensing and price investigation and surveillance.

[b]Defined according to the Customs Cooperation Council Nomenclature (CCCN). The product groups do not totally agree with the positions in Table 1.

[c]Western industrialised countries.

Source: UNCTAD data based on trade measures, Table reproduced in "Protectionism, trade relations and structural adjustment". Conference document 274, Belgrade, June 1983, p. 17.

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applied on various items of LDCs' export interest. While the trade effect of these restrictions is very difficult to quantify, it is not possible even to identify them properly without looking into various policies followed by governments. Moreover there is no agreement whether a particular trade distorting domestic measure has adverse effects. While the 'safeguard' arrangements are covered by Article XIX of the GATT, these rules are often violated.

Structural Adjustment Measures

Even after the Tokyo Round, the LDCs remain at a disadvantage as compared to the developed country suppliers due to higher tariff barriers and the 'agreed' regulations for a series of non-tariff barriers to trade being not binding.

While the trade effect of these new restrictions is very difficult to quantify, it is not possible even to identify them properly without looking into various policies followed by the governments. With a view to liberalize imports from the LDCs, it is very essential to overcome the structural changes in rich countries due to increased division of labour.

It is also very important that before deciding protection, true source of market disruption should be identified, several recent studies tried to estimate the direction of these 'induced' adjustments relating to trade-employment inter-relations.[10] One important finding was that the loss of employment in the economy, resulting from imports from the LDCs, so far has been small in relation to total employment. This relates to job losses due to rise in productivity, changes in final demand and in severe competition from other rich countries, as A. O. Krueger recently suggested that the imports from the LDCs are frequently used as scapegoats for internal structural problems.[11] She found that the growth of output and employment over 1960–75 period in the U.S. For various sociological reasons, governments feel comfortable in protecting domestic labour and capital from cheap imports from the LDCs.

It was suggested in recent studies that the displacement of labour has resulted more from changes in productivity due to technical advances. As far as the market penetration by the LDCs is concerned, it was found that for 14 major product groups in the EEC, UK, Japan and USA over 1960–75 period, the LDCs' exports formed less than 6 per cent of apparent consumption for all product groups of all countries (Here agriculture, fuel, mining and clothing are excluded).[12]

[10]See here UNIDO, *The Impact of Trade with LDCs on Employment in Developed Countries*, Vienna, 1978; OECD, *The Impact of the NICs on Production and Trade in Manufactures*, Paris, 1979.

[11]See A. O. Krueger in W. Kasper and T. G. Perry (eds.) *Growth, Trade and Structural Change in an Open Australian Economy*, 1978.

[12]UNCTAD, *Handbook of International Trade and Development Statistics*, Supplement, 1977.

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For quite some time, the LDCs have insisted for grant of access to industrial markets by removing these restrictions in a non-reciprocal basis. The Brandt commission report also puts it so well: "Protectionism threatens the future of the world economy and is inimical to long-term interests of the LDCs and developed countries alike. Protectionism by industrialised countries against the exports of LDCs should be rolled back; this should be facilitated by imported institutional machinery and new trading rules."[13]

Now it is widely agreed that the developed countries have failed to adjust by moving progressively into new lines of production. Hence the causes of new protectionism by industrial countries lie inside the North and it makes it all the more difficult to justify protection against imports from the LDCs.[14]

It is also very difficult to estimate the tariff equivalent of all the explicit non-tariff barriers due to their non-transparency. Various studies have tried to identify the share of world trade in manufactures exports subject to these restrictions. Recently Balassa showed that the share of total consumption of manufactured goods subject to non-tariff barriers is higher in the U.S. than in the EEC and much higher than in Japan and that it has increased sharply since 1980.[15] These voluntary export restraints are used to limit the exports of textiles, clothing, automobiles, steel, consumer electronics.

In recent years, there has been a significant trend towards industrial protection directed against the LDCs' exports. This has frustrated the outward-looking policy followed by the NICs. Now a question arises whether the LDCs should liberalize their imports under adjustment programmes suggested by the World Bank or postpone such action until they can obtain a 'quid pro quo' in a future round of negotiations.

Recent OECD study also showed that the 'new' protectionism had very little success in protecting domestic employment when compared with the employment effects of changes in macro-economic factors. This protection also accelerated the substitution of capital for labour, further reducing employment. The capital-labour ratio in the textile industry has gone up from well below the manufacturing average in the 1950s to about 20 per cent above it in the 1980s. This capital deepening accounts for two-thirds of decline in employment in this industry.

Safeguard Provisions in the GATT

Looking back, it can be said that these trends will be most difficult to

[14]Willy Brandt, *North-South, A Programme for Survival*, 1980, p. 186.
[15]OECD, *Costs and Benefits of Protection*, Paris, 1985.
[16]B. Balassa, Industrial Protection in Developed Countries, *The World Economy*, June 1984.
[17]See here OECD, *op. cit.*, 1984.

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reverse, because today a general consensus of the 1940s is missing. In fact there has been a quantum leap in the degree of uncertainty surrounding market access and this can undermine the whole trading system.

In the GATT system, the safeguard provision related to different positions of the countries forming GATT in the post-war period. The function of safeguard clause is quite confusing. On the one hand, they try to establish the system by containing the potential for conflict by multilateral surveillance,[17] on the other hand, they may lead to various problems if they are misused.

In the safeguard provision of Article XIX (Escape clause), serious injury from imported goods, competing fairly with domestic goods is avoided. Several contracting parties did not accept its provisions due to vague stipulations and prefer some bilateral arrangements e.g., various VERs. The debate here focussed on the administration of provision; whether it can be applied selectively or whether injury can be seen in terms of economy-wide implications. But more lenient approach follows in cases where foreign suppliers compete fairly.

In the Tokyo Round, no agreement was reached on the safeguard code and the following elements got general support:

(i) Restrictive measures should remain limited so as to prevent serious injury.

(ii) They must not replace structural adjustment to changes in comparative advantage.

(iii) Their use should be subjected to better international discipline and rules for taking protective measures must be established.[18]

Hence a stretching of the protective clause by accepting concession from the GATT principles should have clearly defined limits; now the question of how the existing regulations can be adapted to reality so that it can be put again to general use, is being discussed. Also the desire to minimise compensation to those affected by emergency action induced the EEC to argue for 'selective' application of safeguard action, but this has been strongly opposed by the LDCs. The difficulties associated with administering the article XIX, anti-dumping and anti-subsidy provisions are no less severe than with the MFA.

Special and Differential Treatment for the LDCs

The LDCs' demand for 'special' treatment was codified in the framework agreement in Tokyo Round and it extended earlier provision of

[17]See here G. Curzon and V. Curzon, 'The Management of Trade Relations in the GATT', in A. Shonfield, *International Economic Relations of Western World*, Volume 1, London 1976.

[18]See here I. Frank, *Trade Policy Issues of Interest to the Third World*, London 1981, p. 29.

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1965 that the developed countries do not expect reciprocity for commitments made by them in trade negotiations to reduce or remove tariffs and other barriers to the trade of LDCs.[19]

In course of the New Round, the LDCs will be asked to give up the special and differential treatment under part IV. In the cost of giving up special and differential treatment, three issues are involved. The NICs will be asked to give up their benefits under the GSP; moreover now the NICs should refrain from resorting to quantitative restrictions to deal with balance of payment problems and whether the NICs will be allowed to pursue policies to help the infant industries.

Actually the cost of graduation from GSP should be weighed against two issues; the GSP was meant to stimulate industrial development in the LDCs, irrespective of their comparative advantage. Moreover, the developed country could use the GSP as an excuse for various MFA, VERs and other marketing arragements. The LDCs should also look into their entitlement under Article XVIII in resorting to direct controls on current account transactions, with a view to solve balance of payment problems. More relevant here are the policies to help their infant industries. So long as there is a need for exploiting externalities due to dynamic scale economies, LDCs have to pursue policy for their infant industries.[22]

The past experience shows that the GSP schemes, through applications of quantitative restrictions and tariff quotas, were transformed from a 'trade' programme to an 'aid' programme of tariff income transfers. Recent studies showed that these transfers under the GSP schemes represent export increases of less than 2.5 per cent when measured by total LDCs' export of manufactures and semi-manufactures.[21] Recently it has been shown that the benefits for the LDCs from the multilateral trade liberalization are more than 10 times greater than those derived from GSP schemes.[22] It was also suggested that the NICs on balance have been losers, since they lost GSP treatment on several competitive products, leading to various frictions in view of increased imports under GSP schemes.[23]

[19]"Differential and More Favourable Treatment, Reciprocity and Fuller Participation of Developing Countries", Decision of 28 November 1979 in *Basic Instruments and Selected Documents*, 26th Supplement Geneva, GATT Secretariat 1980, p. 205.

[20]See here Lawrence Krause, 'The LDCs and the GATT' in Soogil Young, *Pacific Perspectives on Trade Policy Issues*, Seoul 1985.

[21]See here, R. Baldwin and Murray, *Economic Journal*, 1977, pp. 32–46; R. N. Cooper, *EEC System of GSP*, *Journal of Development Studies*, 1972.

[22]T. Birnberg, 'Trade Reform Options' in W. Cline, *Policy Alternatives for NIEO*, Praeger 1979.

[23]For recent analysis see R. Langhammer and Sapir, *Economic Impact of Generalised Tariff Preferences*, Trade Policy Research Centre, 1987.

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Some Emerging Issues

Now in case of several LDCs, the export-oriented production is in critical stages of development, but due to their poor resource endowments, it is very difficult to diversify towards the middle and upper end of the technology scale.

Recently there has been an erosion of the discipline of the multilateral trading system, as was highlighted by several recent events e.g., the codes of behaviour negotiated at the Tokyo Round, the renegotiation of the MFA and the recent GATT ministerial meeting. Now in the current negotiations, two issues are most important: the concept of 'graduation' and 'reciprocity'. As the recent GATT ministerial meeting showed, the developed countries did not accept trade commitments as firmly as they were sought by the Group of 77.

Now we hope that the current negotiations will help towards return to the GATT's most favoured nations treatment and also replacement of various VERs by more 'open' measures as tariffs. Recently a free trade arrangement was forged between the US and Canada and several such bilateral deals have been conducted on some 'special' terms. While all the participants are committed to 'stand still' and 'roll back' of trade restrictions and the stand-still commitments must be equipped with some 'teeth'. Moreover the rolls-back should also include measures consistent with GATT, but not based on GATT principle e.g. the MFA and various restrictions on trade and agriculture.

While the previous GATT Rounds were conducted in "one fell swoop",[24] that is, agreement on any given part of agenda did not take effect, until all agenda items were considered. In the present round, a 'rolling' agenda will be most likely adopted. Really an improved safeguard system and application of GATT rules to trade in agricultural goods and textiles and clothing would greatly increase the LDCs' trade opportunities.

Concern over recent developments culminated in a meeting in September 1986 in Punta del Este, Uruguay of Ministers from 91 contracting parties. The ministerial declaration states as a primary objective, the desire to bring about further liberalization and expansion of world trade to the benefits of specially less developed parties and improvement of access to markets by the reduction of tariffs and other non-tariff measures.[25] Hence a liberalization of imports from the LDCs should be on a long-term basis and also provide for removal of trade barriers in several stages according to a binding time table of 10 to 15 years.

[24]See G. Hufbauer and Jeffrey Schott, *Trading for Growth: The Next Round of Trade Negotiations* (Washington, D.C.) Institute for International Economics, 1985, p. 90.

[25]See Ministerial Declaration on the Uruguay Round GATT, 1396, Geneva, 25 September, 1986.

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The future world trading system must take care of legitimate interests of the LDCs, because the unconditional most-favoured-nations treatment is the basis of multilateralism and also a point of reference for preferential treatment in favour of the LDCs.

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ANTI-POVERTY PROGRAMMES IN JAMMU AND KASHMIR* WITH SPECIAL REFERENCE TO INTEGRATED RURAL DEVELOPMENT PROGRAMME (IRDP)—A CASE STUDY†

M. S. BHAT and VINOD JEEL TALASHI

Post-graduate Department of Economics, University of Kashmir, Srinagar–190006 J & K (India)

The planning process in India was informed by the twin objectives of higher rates of growth and distributive justice right since its inception. These objectives have been emphasised and reiterated in the various plan documents although at the operational level the tools and methods to achieve these objectives have varied from period to period.

The country has moved off the dead centre of stagnation and succeeded in achieving a rate of growth of 3.5% per annum during the period 1951–83. However, the objective of distributive justice, particularly in the rural areas, has eluded the planners for the simple reason that full-fledged agrarian revolution failed to materialize. The studies conducted by the Planning Commission, various independent agencies and scholars have highlighted the hard fact that the benefits of the development process had mainly been garnered by the upper middle and richer sections of the urban and rural strata.

In this backdrop, the government of India initiated a number of programmes from time to time to uplift the rural poor so that the syndrome that entangles them could be broken and the decks cleared for raising their income and levels of living. All these programmes were launched with the explicit intention of giving a boost to the national economy. Some of the important programmes are: Small Farmers Development Agency (SFDA), Marginal Farmers and Agricultural Labourers Programme (MFAL), Drought Prone Area Programme (DPAP), Integrated Rural Development Programme (IRDP) etc.

Integrated Rural Development Programme was launched in 1978 in 2300 blocks all over the country and extended to all the 5011 development blocks from 2nd October, 1980. It was conceived as a massive nationwide frontal attack on poverty.

The main objective of this programme is to raise families in the identified target group above the 'poverty line'. The target group consists of

*Jammu and Kashmir is a state in north India.

†The paper is an abridged part of a research project undertaken by the author to study the impact of poverty alleviation programmes in Kashmir Valley.

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the poorest among the poor in rural areas—Small and Marginal Farmers, Agricultural Labourers, non-agricultural labourers, rural artisans, scheduled castes and scheduled tribes. In the beginning the family was taken as a unit of development and block as the area of development. However, in the 7th Five Year Plan the individual has been fixed as unit of development while as the block continues to be the area of development.

Integrated Rural Development Programme has certain specifications which need elaboration. The programme stipulates the working out of "strategies, policies and programmes for the development of rural areas and the promotion of activities carried out in such areas (agriculture, forestry, fishery, rural crafts and industries, the building of the social and economic infrastructure) with the ultimate aim of achieving a fuller utilisation of available physical and human resources and thus higher incomes and better living conditions for the rural population as a whole, particularly the rural poor and effective participation of the latter in the development process (Anker, 1973).

In other words integrated rural development aims at bringing about an institutional change in which the various variables act and react in a manner that the entire rural community develops in a humanistic sense. However, the definition of IRDP smacks of "gross category approach"[1] in the sense that it is non-discriminatory and does not take note of the deprivation suffered by different sections within the rural areas. Yet the package takes note of the special needs of rural areas in the country.

During the Sixth Five Year Plan (1980–85) the total investment on IRDP amounted to Rs. 4,73,000 million comprising Rs. 16,500 million of subsidy and 30,800 million of bank loan. A total of 16.5 million families have been benefited and of these 6.4 million belong to scheduled castes and scheduled tribes. The ceiling of subsidy is Rs. 3,000 for a normal area and Rs. 4,000 for the drought prone area and Rs. 5,000 for the tribals. Besides, it stipulated that at least 30 per cent of the families are drawn from the scheduled castes and scheduled tribes.

The State Governments are required to provide appropriate backup and infrastructure for the implementation of IRDP. For implementing the IRDP and other special programmes District Rural Development Agencies (DRDA's) have been set up in all the districts under the Chairmanship of Project Officer/Project Director/Deputy Commissioner of the District.

The programme as a key component of the package of poverty alleviation programmes in its present form was launched in 75 "Approved Blocks" in Jammu and Kashmir State in 1981–82. Subsquently all blocks have been covered under the programme which aimed at the development of horticulture; agriculture; animal husbandry; rural industries; sericulture; petty trades etc. have been conceived, formulated and laun-

[1]Sen, 1985.

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ched in most of the target areas. During the Sixth Five Year plan an amount of Rs. 1371 lakhs was earmarked for IRDP schemes. Central and State grants are placed at the disposal of the Rural Development Agencies which have been established in all 14 districts of the state. A household survey of the beneficiaries was conducted by the Department of Rural Development and 4.57 lakh families were found living below *officially defined poverty line* out of which 1.81 lakh beneficiaries have been assisted against a target of 3·89 lakh beneficiaries (J & K Govt. 7th Five Year plan, 1985–90).

A perusal of various IRDP blue prints, prepared during the Sixth Five Year Plan, reveals that these have either been overambitious or unrealistic and often been prepared in haste violating the basic guidelines of IRDP.

As per national perspective of bringing the percentage of population below poverty line to less than 10 per cent by 1994–95, the Seventh Five Year Plan seeks to cover the 6th Plan backlog and achieve the targeted coverage. It further seeks to lay greater emphasis on integration of different poverty alleviation programmes in order to supplement asset creation with self-employment and wage-employment. Last but not the least it proposes to remove defects and short-comings that have come to light during the Sixth Plan Period.

This demands a dispassionate evaluation of IRDP schemes at disaggregated level. As per official estimates IRDP has been exceptionally successful in the State. Some government sponsored evaluation reports have been prepared which are often quoted to justify the official estimates. However, no independent study has till date, been conducted to cross-check the official estimates. With a view to meet this requirement an attempt has been made in the following pages to assess the working of IRDP schemes in block Dachnepora of District Anantnag of Kashmir Division.

The peculiar social, geographical and economic conditions of the state require a special reorientation, both at theoretical and practical levels, of antipoverty programmes. Any attempt to superimpose national pattern of IRDP will be futile. The present study assumes additional importance under these circumstances.

Objectives of the Study

In consonance with the above backdrop the main objectives of the present study are:

1. To assess the mode of identification of beneficiaries and activities under IRDP.
2. To enumerate the assets created.
3. To identify the factors responsible for success/failure and other related issues of the programme.

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4. To put forth appropriate policy prescription for the proper implementation of the programme.

Brief Profile of the Study Area

Block Dachnepora is situated towards the north of district Anantnag. Dachnepora is the name of some of the area lying towards the right of river Lidder which flows down from Pahalgam. Dachnepora block comprises of 66 villages[2] (39 and 27 villages of tehsil Bijbehara and Pahalgam respectively). The total population of the block as per Census of 1981 is 71,554. There is no scheduled caste and scheduled tribe population in the block.

Methodology

Primary data were collected by field survey through an openended questionnaire. Twenty five beneficiaries (which were assisted in the year 1983–84) under the five main schemes namely dairy, bullock, horse keeping, crewal and chabi[3], were selected by systematic random sampling. The list of beneficiaries and the schemes operative in the block was obtained from DRDA Anantnag.

For the sake of comparison twenty five non-beneficiaries have been selected by purposive sampling.[4]

The beneficiary and non-beneficiary households have been categorised on the basis of their land holdings/occupations. As per this criterion, 4 beneficiaries (16 per cent) are rural artisans, 9 (36 per cent) are marginal farmers, 5 (20 per cent) are small, 4 (16 per cent) are medium and 3 (12 per cent) are large farmers. Likewise 4 non-beneficiaries (16 per cent) are non-agricultural labourers, 4 (16 per cent) are agricultural labourers and 17 (68 per cent) are marginal farmers.

[2]3 villages are uninhabited two from tehsil Bijbehara and one from tehsil Pahalgam.

[3]Dairy refers to the place of processing and distribution of milk and milk products. Adoption of dairy scheme, therefore, refers to getting the 'milch animals' (only cows are provided as milch animals in our study area) with a view to increase the income by marketing the milk and milk products. Improved cow breeds provided to beneficiaries under IRDP yield much milk thereby are expected to supplement the income of beneficiaries.

Bullock is used to plough the land. Besides polughing their own land some of their owners sell the services of bullocks to earn their livelihood. The services of horses are mainly provided to tourists for recreation or are used for transport.

Crewal is an embroidery work on cloth or Namdhas (Kashmiri handicraft). Worsted yarn is used in this embroidery to beautify these.

Chabi is an embroidery work on cloth etc. It is mostly embroidered on pherans meant for females (locally named as Zari pherans). Chabi machines, which are provided to beneficiaries under this scheme, are used in this embroidery work.

[4]The main criteria for the selection of non-beneficiaries was the size of ownership holdings. The households with size of holdings and not assisted under IRDP were taken in the non-beneficiary segment of our sample.

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Analysis and Results

The study reveals that marginal farmers (36 per cent) of the beneficiary households fall below the poverty line income of Rs. 3,500[5]. Their average annual income is Rs. 3395.95. The average annual income of rural artisans, small, medium and large farmers is Rs. 39894.25, Rs. 11444.40, Rs. 14248.09 and Rs. 58337.13 respectively. Thus only 36 per cent of the beneficiaries have been correctly identified. The study further reveals that among the non-beneficiary group; agricultural labourers, non-agricultural labourers and marginal farmers categories have an average annual income of Rs. 1147.46, Rs. 1618.67, Rs. 1344.00 respectively. *Thus IRDP has not been implemented in right direction and the 'Antodaya Analogy'* (serving the poorest of the poor first) has not been followed.

To enumerate the assets created under IRDP the application of input-output ratio is a useful technique. The input-output ratio expresses the relationship of investment in a given scheme for a given time period to output of that scheme for a similar time period. The input-output ratio of the selected schemes when arranged in a descending order are horse-keeping crewal embroidery, dairying, chabi and bullock activities. The input-output ratio for bullock and chabi schemes is even below 1 : 1 i.e. they are being operated at loss. For horse keeping, crewal, dairying, chabi and bullock activities input-output ratios work out 3.56, 2.19, 1.36, 0.89 and 0.66 respectively. Thus it is evident that the most profitable scheme in the study area is horse keeping followed by crewal and dairying.

The average household income of beneficiary group as a result of IRDP has increased by 1.33 times i.e. to Rs. 25,598.93. Except rural artisans, whose average household income has decreased by Rs. 48.75, the average household income of all the beneficiaries has increased. The average household income of marginal farmers (Rs. 3395.95), which was below the poverty line income of Rs. 3500 before the introduction of IRDP, increased to Rs. 5075.68. The income of large, medium, small and marginal farmers has increased by 69.83 per cent, 17.29 per cent, 23.54 per cent, 49.46 per cent respectively compared to their pre-IRDP income. Rural artisans' income has decreased by 0.12 per cent.

Loans/Subsidies/Time/Expenditure/Leakages

The average amount of credit (loan+subsidy) granted to the bene-

[5]Beneficiary respondents in our study were identified in the year 1983–84 by the concerned agencies. Through the Seventh Five Year Plan, the poverty line was redefined but beneficiaries have not been redefined as per this new poverty norm. In 1983–84 poverty line norm was Rs. 3500 per family per annum while in the 7th Five Year Plan this norm is Rs. 6400 per family per annum. We have analysed our results on the basis of 1983–84 (6th Five Year Plan) poverty norm which automatically introduces an element of underestimation as far as shortcomings are concerned and overestimation as far as achievements are concerned. Thus the results become automatically more reliable.

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ficiaries worked out Rs. 3,394 at a uniform rate of interest for each activity (at 10 per cent per annum). The average amount subsidised for the group as a whole worked out at 33.08 per cent with not much variations between different categories. The average outstanding amount for the beneficiary group is Rs. 240.53. For rural artisans, marginal, small and medium farmers the average amount of outstanding credit per category works out to be Rs. 693.89, Rs. 212.89, Rs. 40 and Rs. 100 respectively. Large farmers had repaid loans within a period of 6.66 months. No association could be established among the average income of households, amount repaid and amount outstanding.

While as the prescribed time limit for getting a loan/subsidy sanctioned under IRDP is 15 days, it was found that the average time lag in applying for and sanction of a scheme 101.40 days with the least average period of 90 days for the large farmers and the highest average period of 110 days for rural artisans. Prevailing structure of institutional finance, with its complicated lending procedures, coupled with almost neglegible literacy rate is one of the main reasons for this disquieting situation. To become a loanee under IRDP a beneficiary household had to spend on an average an amount of Rs. 235 consisting of Rs. 43.60 as transport charges and Rs. 191.48 as bribes. The average estimated misutilised amount for the beneficiary group is Rs. 954 with the maximum of Rs. 3062.50 in the rural artisans showing that 77.79 per cent of credit granted to them is misutilised. The leakages (in the form of average pre-loan expenditure and average misutilised loan) for the beneficiary group averaged Rs. 1189.08. For rural artisans, marginal, medium, small and large farmers this average came out as Rs. 3215, Rs. 1278.89, Rs. 703.75, Rs. 424.40 and Rs. 140.0 respectively.

Implementation of IRDP is carried out by the District Rural Development Agency (DRDA) at district level, Block Development Officer (BDO) at block level and village level worker (VLW) at village level. It is the primary responsibility of VLW and BDO to educate the poor masses about the programme. In this task they are also assisted by Project Office and financial institutions. Exbeneficiaries, friends and relatives also play some role in educating the people. The present study revealed that VLW, B.D.O., financial institutions, project office, friends and ex-beneficiaries have educated 36 per cent, 4 per cent, 8 per cent, zero per cent, 4 per cent and 48 per cent beneficiaries respectively. Only 11.11 per cent of VLW's informants belonged to below the poverty line segment of the sampled households.

After education/information comes the selection of deserving persons (namely poorest of the poor) for assistance under the programme. Sixty per cent of the sampled beneficiaries had to approach themselves to the concerned authorities for selection while forty per cent of the beneficiaries were reported to have been approached by the concerned authorities for

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selection.

Twenty four per cent of the beneficiaries adopted the schemes because of subsidy motive and seventy six per cent adopted because of demonstration effect. Further twenty four per cent of the beneficiaries had not purchased/set up assets/units while-as seventy six per cent had set up the units. Out of the twenty five sanctioned units only 19 had been set up. Out of the 19 set up units, 6 units did not exist at the time of survey (March-April, 1987). The percentage of non-existing units has been found to be fifty per cent, thirty three per cent and thirty three per cent with small, marginal and large farmers categories respectively.

Difficulties faced by the beneficiaries

Many difficulties have been faced by the beneficiaries under the programme. These difficulties when arranged in descending order of their frequencies are: Lack of marketing facilities (in case of surplus milk), official delay, lack of verterinary facilities, high interest rate, lack of adequate knowledge about the management of assets provided, lack of unskilled and skilled labour.

General suggestions reported from respondents

Number of suggestions by some sampled beneficiaries were expressed to improve the performance of the programme. Proper supervision of animals by veterinary personnel received highest priority among the beneficiaries probably due to the preponderence and popularity of animal husbandry scheme in the study area. Several other suggestions expressed by beneficiaries in the descending order of their frequencies were: speedy official work; Govt. milk collection centres; low interest rates; provision of high yielding milk animals; cheap raw-materials (crewal embroidery) to be provided by the Government; opening of government animal drug stores in a nodal village; subsidy on veterinary drugs and increase in subsidy to one-half for all the beneficiaries.

Awareness of non-beneficiaries about IRDP

Although the average income of all the non-beneficiary sampled households was well below the poverty line income, yet they were not covered under any IRDP scheme. Of six households among 25 non-beneficiaries, who were aware about IRDP and knew the channel of approach for getting suitable asset; four did not receive any response from VLW and 2 from BDO. Further, VLW has informed only 1 (4 per cent) of the non-beneficiary households.

Concluding Remarks

As per the guidelines of IRDP for the Sixth Five Year Plan households below an annual income of Rs. 3500 (per households of 4–5 persons) were

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to be covered on *Antodaya Analogy*. In the study area this guideline has been violated. For instance only thirty six percent of sampled beneficiary households had an annual income of Rs. 3395.95. Therefore, 36 per cent of the beneficiaries had been correctly identified as poor while 64 per cent have been misclassified as poorest of the poor. The percentage of misclassification works out to the second highest in the country till date. Further under IRDP only families with an average annual income of Rs. 3395.95 have been assisted but no attention has been paid towards the households with average incomes as Rs. 1147.46, Rs. 1344 and Rs. 1618.67 in the non-beneficiary group i.e. much below than the assisted ones and very far from the poverty line. Thus basic condition of selecting the poorest among the poor has not been adhered to which goes against the very rationale of IRDP. However, those covered under the IRDP have crossed the poverty line which justifies the efficacy of IRDP as a strategy for poverty alleviation. Schemes have been identified according to the occupation/land holding of the beneficiaries which appears to be a healthy sign. Schemes like horse keeping, crewal embroidery, dairying have proved beneficial activities. Given adequate extension services, institutional framework, proper methods of selection, funds, proper feed-back marketing facilities and feasible schemes results would have been highly encouraging.

In consonance with the above analysis the following suggestions merit special attention of policy makers and planners.

1. In Jammu and Kashmir, unlike most of the stages, transformation of agricultural sector has been pursued along two directions viz., institutional reforms and technological changes. The state has unique distinction of introducing radical land reforms as early as 1950's. It is rightly argued that these reforms have proved to be the most important single factor which engineered basic changes in the rural sector of the state economy. A decadent feudal agrarian set up was transformed setting an example before the whole country. Institutional changes, despite their rationale and importance, were not sufficient to augment agricultural development. Technological innovations were to play major role in the process of agricultural transformation. It was in consonance with this and in view that new agricultural strategy was launched in the state with its origin in the intensive Area Development Programme and High Yielding Varieties Programme.

   A perusal of various developmental schemes, initiated from time to time for transforming agriculture, reveals that the major thrust has been on increase in cereal production. There has been an impressive increase in cereal production. However, in the years after the introduction of new agricultural strategy the state's dependence on food imports has steadily increased. This makes achievements on food front rather misleading. Therefore, some of the

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basic questions about the new agricultural strategy and subsequent changes in the rural sector deserve special attention. For instance in spite of radical agrarian reforms state's agricultural sector continues to be an important bottleneck in planning for higher growth.

An uneven distribution of area in different size category of holdings and a high magnitude of proletarisation is a disturbing phenomenon of diverse ramifications. What is more disturbing is that these holdings are not found in one compact block. Disparities between rural and urban incomes, between large and small farmers and between wet and dry land cultivators have increased over the years. Programmes of rural prosperity have not centered around intensification and diversification. Almost all the Ph.D. theses conducted on agriculture in J & K have revealed low income per hectare and low agriculture income per worker and mis-match between the size and structure of holdings. Consequently, majority of agricultural holdings in the state have become economically non-viable. Another important reason for small sized non-economic holdings is perpetual fragmentation and sub-division of holdings. Thus the present agrarian set up in the state is one of the important reasons for rural poverty in Kashmir. Since IRDP envisaged to cover 66 per cent of schemes from agriculture and related sectors thereby assigning key role to agricultural transformation in poverty alleviation programmes. Thus poverty alleviation programmes in the State have to be recasted keeping in view the major challenges and constraints arising from agrarian scene which is far from encouraging.

2. Due to economic, social and climatic conditions it is unrealistic to apply poverty norms devised at the national level to the State for measuring incidence of poverty. Such a poverty norm underestimates the incidence of poverty and overestimates achievements. Hence regular household consumption pattern surveys for defining the poverty line with respect to local conditions must be conducted.
3. Data collection machinery at block level needs to be strengthened.
4. A block co-ordinating Committee should be set up at the block level to co-ordinate the activities of Government, Department, Co-operative Banks and Commercial Banks.
5. There is greater need for integration of the individual plan and block plan, taking into account individual needs and block's potential needs.
6. Emphasis should be laid on the provision of education, both formal and non-formal, for the weaker sections as this shall open up better avenues for their participation in the developmental programme.
7. To ensure correct identification of beneficiaries a house survey should be conducted to calculate the total annual income from all

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sources. The team for such a survey should comprise of Patwari, Naib-Tehsildar, Block Officials (B.D.O and Field Assistant), officials of concerned banks, economists and nutrition experts.

8. Non-government agencies, experts and research groups should be involved to cross-check the identified prospective beneficiaries. Identity cards should be issued by these institutions/expert groups and only these card holders must be treated as valid.
9. The whole block should be divided into various clusters according to its resource-base and not on administrative convenience. Schemes found suitable in each of these clusters according to its resource base should be selected for the beneficiaries.
10. While selecting a scheme, it is necessary that the beneficiary should be interested in its adoption and must have management capability or should be trained to manage the asset to be created under the programme.
11. Adequate attention should be paid towards the development of forward and backward linkages necessary for the schemes selected in cluster areas.
12. Monitoring system should be an integral part of the management of IRDP. It must involve a review of the implementation of IRDP and study how far these benefits reach the poorest of the poor.
13. Independent evaluations of IRDP should be conducted to eliminate the possibility of biasness in such evaluations.
14. Instead of placing more persons and experts at the district level, the block organisation which is closer to the people, needs to be greatly strengthened both quantitatively and qualitatively. This is the only way it can function as an effective multi-disciplinary base for planning and implementing multi-sectoral activities.
15. IRDP should be publicised on a large scale. To ensure that benefits accrue to the poorest of the poor massive demonstration of the programme by film shows, dramas, rural awareness camps, radio and T.V. programmes is needed.
16. There is an urgent need for ensuring people's participation at various stages of the planning process. At each village, an 'Action Cell' should be constituted consisting several successful ex-beneficiaries (who had been selected from poorest of the poor). These will render a good support to Bank and Block Staff and work as a link between Banks, Block and beneficiary. Their suggestions regarding the success of the programme would be readily accepted by the villagers.
17. Participation of voluntary organisations in the programme should be encouraged and made part and parcel in mass motivation, identification of beneficiaries and schemes and after-care activities.

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18. Women should be encouraged to participate in IRDP and suitable schemes should be evolved for them.

Rural development is not a simple task. At every stage it poses problems of diverse manifestations. Quality of manpower is a crucial variable for the success of poverty alleviation programmes. Unless a motivated team of functionaries (with deep interest, dedication and high morale) is entrusted with the implementation of IRDP it shall always bypass the poor. Though the scope of the present study is limited to just one block of Kashmir valley, the results have supported more vigorously the inferences drawn from the numerous similar studies conducted across the country/states/regions in India. In certain respects the present study has revealed distinct and striking results of immense policy implications.

Summary

The planning process in India was informed by the twin objectives of higher rates of growth and distributive justice right since its inception. These objectives have been emphasised and re-iterated in the various plan documents although at the operational level the tools and methods to achieve these objectives have varied from period to period.

The country has moved off the dead centre of stagnation and succeeded in achieving a rate of growth of 3.5 per cent per annum during the period 1951–83. However, the objective of distributive justice has eluded the planners for the simple reason that full-fledged agrarian revolution failed to materialize.

In this back-drop, the government of India initiated a number of programmes from time to time to uplift the rural poor so that the syndrome that entangles them could be broken and the decks cleared for raising their income and levels of living. One of these important programmes is Integrated Rural Development Programme (IRDP).

The main objective of this program is to raise families in the identified target group above the 'poverty line'. The target group consists of the poorest among the poor in rural areas.

A perusal of various IRDP blue prints, prepared during the Sixth Five Year Plan, reveals that those have either been over-ambitious or unrealistic and often been prepared in haste violating the basic guidelines of IRDP.

As per national perspective of bringing the percentage of population below poverty line to less than 10 per cent by 1994–95, the Seventh Five Year Plan seeks to cover the Sixth Plan backlog and achieve the targeted coverage. It further seeks to lay greater emphasis on integration of different poverty alleviation programmes in order to supplement asset creation with self-employment and wage-employment. Last but not the least it proposes to remove defects and shortcomings that have come to light during the Sixth Plan period. This demands a dispassionate evaluation of IRDP schemes at disaggregated level.

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The peculiar social, geographical and economic conditions of the state require a special reorientation, both at theoretical and practical levels, of anti-poverty programmes.

In consonance with the above backdrop the main objectives of the present study are:

1. To assess the mode of identification of beneficiaries and activities under IRDP.
2. To enumerate the assets created.
3. To identify the factors responsible for success/failure and other related issues of the programme.
4. To put forth appropriate policy prescription for the proper implementation of the programme.

Though the scope of the present study is limited yet the results have supported more vigorously the inferences drawn from numerous similar studies conducted across the country/states/regions/blocks in India. In certain respects the present study has revealed distinct and striking results of immense policy implications.

Rural transformation has, of late, come to be regarded as a strategic factor in the development process in India. During the fifties and early sixties rural change and uplift were conceived to be almost synonymous with agricultural growth. The hypothesis was based on the premise that sustained agricultural growth would automatically make a dent on rural poverty through trickle-down mechanism. However, the failure of higher agriculture rates of growth to reduce, even marginally, the magnitude of rural poverty (particularly absolute poverty) persuaded the decision makers to recast their perceptions. It was felt that the tolerance of rural poverty had the potential of undermining the very process of development in the country and that a proportionate and balanced growth of the urban and the rural sectors was a necessary condition for a sustained and satisfactory growth of the national economy (It needs to be mentioned here that a satisfactory rate of growth is not necessarily and always the maximal rate of growth).

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INCENTIVES AND EXPORT PROMOTION WITH SPECIAL REFERENCE TO SELECTED ENGINEERING GOODS

MRS. SHAIL SINGH

Department of Economics,
J.L.N. (P.G.) College, Etah (India)

One of the striking features of India's exports in recent years has been that the share of traditional commodities like tea, jute, cotton piece goods, etc., has gone down while the share of non-traditional commodities in India's total exports is now over 50%. In this context, the engineering goods industry has given a good account of themselves in establishing their credibility abroad. Table 1 shows that structure of Indian exports is

TABLE 1

CLASSIFICATION OF INDIAN EXPORTS

(Rs. Crores)

Sl. No.	Commodity group	1960–61	1065–66	1966–67 to 1968–69	1969–70 to 1973–74	1971–75 to 1977–78	1978–79 to 1979–80
1.	Food, beverages and tobacco	241 (33.2)	262 (31.6)	1153 (31.6)	2637 (29.3)	5530 (30.9)	3371 (27.7)
2.	Raw materials (including oils)	119 (18.6)	144 (17.9)	635 (17.4)	1426 (15.8)	2185 (12.2)	1224 (10.4)
3.	Manufactured goods	271 (42.1)	346 (43.1)	1490 (40.8)	3675 (40.8)	7696 (42.9)	5911 (48.5)
4.	Machinery, iron, steel and engineering goods	20 (3.1)	30 (3.7)	285 (7.8)	947 (10.4)	2450 (13.7)	1581 (13.0)
	Total	624 (100.0)	806 (100.0)	3651 (100.0)	9010 (100.0)	17922 (100.0)	12185 (100.0)

Note: Figure in brackets are percentage to total. Since certain exports are 'Unclassified', the total of various components may not be equal to 100.

Source: Reserve Bank of India Bulletin, and Report on Currency and Finance 1980–81.

typical of an underdeveloped economy. A major share of exports is accounted for by consumer goods, raw materials, and agricultural products. The share of capital goods during 1969–70 and 1973–74 was only 10.4 per cent, that of manufactures 40.8 per cent, and of raw materials 15.8 per cent. The structure has more or less remained unaltered upto 1969–70 to 1973–74. But during 1978–79 and 1979–80, the share of manufactured goods increased to 48.5 per cent—a record in the post-independence period. And

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the most significant increase is seen in the case of fourth group i.e. machinery, iron and steel, and engineering goods.

India is facing balance of payment difficulties continuously which are not temporary. They are a part and parcel of the process of development. The total indebtedness on account of excess imports over exports is greater than the foreign loans so far received. The balance of payment deficit of developing countries could be covered either through depleting foreign reserves or by greater external assistance or by import substitution or through export promotions. To the extent one fails to solve the problem under one heading it increases the burden to be borne under other headings. To some extent each of the possible solutions is a substitute for the other. Table 2 shows the position of India's trade balance during various plans.

TABLE 2

TRADE BALANCE DURING VARIOUS PLANS
(in Rs. Crores)

Plans	Average annual imports	Average annual exports	Average balance of trade
First plan	730	622	−108
Second plan	1080	613	−467
Third plan	1224	747	−477
Annual plans	1925	1236	−689
Fourth plan	1972	1810	−151
Fifth plan	5221	4481	−740
Rolling plan (1978–79)	6811	5726	−1085
Rolling plan (1979–80)	9143	6418	−2725
Sixth plan	14547	8904	−5643
Seventh plan (1985–86) Apr.–Dec.	13867	7656	−6211

Source: Various RBI Bulletins and Ministry of Commerce Annual Reports.

Export promotion may be regarded as a major plank of India's foreign trade policy to overcome the burden of adverse balance of payments as rest of the measures are associated with various drawbacks.

The present study is confined to the engineering goods export of India, and covers the specific period from 1960 onwards. As the export of engineering goods was insignificant before 1960, it is not taken under consideration. In the present study an attempt has been made at outlining

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various types of incentives and export promotion measures provided by the Indian Government and at evaluating the effectiveness of these incentives and export promotion measures.

The engineering industry started only after India attained independence in 1947. But today, the scene has changed entirely, India has not only become self-reliant in a variety of engineering equipments but also she is exporting many of the engineering goods. The country is currently producing power generation, transmission and distribution equipments, plants and machinery for steel making, chemical and fertilizer plants, electrical and construction machinery, machine and hand tools, railway rolling stock, commercial vehicles, earth moving equipments, agricultural equipments and a large number of other items. The Indian Engineering Industry has proved itself as one of the most dynamic sectors of Indian economy. It is a fact that engineering goods export literally started from a nominal amount of Rs. 5 crores in 1956–57, but over a period of nearly 25 years, it has reached a level of around Rs. 1000 crores. The proportion of engineering exports to total exports has risen to 11.5 per cent in 1977–78 from a mere share of .8 per cent in 1956–57. And it has reached to the highest value of 13.4 to 14 per cent in 1981–82 and 1982–83 (Table 3). Now it is doubtful if the

TABLE 3
ENGINEERING EXPORTS 1956–57 TO 1984–85

Year	Engineering exports	Total exports	Engg. exports as % of total exports
1956–57	6	604	.8
1960–61	11	642	1.6
1965–66	30	806	3.7
1970–71	116	1535	7.6
1975–76	408	4042	10.1
1976–77	552	5142	10.7
1977–78	624	5404	11.5
1978–79	717	5726	12.5
1979–80	737	6428	11.5
1980–81	874	6711	13.0
1981–82	1047	7806	13.4
1982–83	1250	8908	14.0
1983–84	1170	9872	11.9
1984–85	1300	11297	11.5
		*22.0	

*Annual average compound growth rate between 1956–57 and 1984–85 (%).

Source: Engineering Export Promotion Council, Calcutta.

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ratio can be maintained even at the lower level of 11.5 per cent reached in 1984–85. According to Press reports the value of engineering goods export in 1985–86 fell by 5 per cent compared with the previous years figures, which itself was nearly Rs. 800 crores short of the target of 1,750 crores set. The outlook for 1986–87 remains yet uncertain, though the target has been kept again at Rs. 1,750 crores.

To analyse the present situation, it has become necessary to evaluate the present structure of export promotion measures and incentives. The following hypotheses have been formulated for the purpose.

1. Whether the incentives lead to increased export of engineering goods;
2. Whether the incentives given by the Government of India are adequate or not; and
3. Which of the incentives is most effective among all of the incentives.

The export promotion measures and incentives can broadly be grouped as under[1]:

I. Fiscal Incentives

These incentives take the form of exemption, rebate, refund or postponement of direct or indirect taxes leviable on exports; and special tax concessions for production for export purpose. These incentives are provided with a view to making export business more attractive through the tax concessions. They include all measures to remove disincentives to export efforts caused by duty or other changes on exports; duties on imports of materials and components required for the transactions related to exports; and for those which exercise duties on production for exports that add unnecessarily to the selling price of export product. These incentives include income tax concessions, customs drawback, refund of excise duties, exemption from sales tax, etc.

II. Financial Incentives

These incentives are designed to make business more attractive through compensation from quality and price disadvantage in foreign markets resulting from special subsidies to encourage export promotion. They include various types of credit facilities at concessional rate at the pre-shipment and post-shipment stages; direct or indirect cash subsidies to exporters for price disadvantages in foreign markets; direct cash subsidies for special export promotional efforts etc. to manufacturers and exporters by either government or industry and trade associations.

III. Special Incentives

These incentives have been devised for removing hinderances in exports and to provide inducements to expansion and diversification of

[1]NCAER: *Export Strategy for India*, New Delhi, June 1969, p. 66.

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exports. These incentives may either be of fiscal or of financial nature having a distinctive characteristic of serving purposes either promotional or encouraging to the exporters, such as import entitlement schemes, tax credit certificate scheme and the scheme of compensatory support for the export of non-traditional industrial products.

IV. General Incentives

Government of India has provided various general incentives in the form of specialisation of services for Industry and Trade, so that facilities and assistance to the exporters continue to expand and they are thereby enabled to reach out more effectively to world markets. The organisational framework comprising commodity specialisation has also been supplemented by. Mainly these incentives include market surveys and studies abroad, export publicity, trade fairs and exhibitions; import facilities and awards for outstanding performance.

The two most important schemes in continuation are—the one as import replenishment scheme and the other as cash compensatory support. Engineering exports have claimed Rs. 200 crores on an average as cash compensatory support which was for most years in the seventies was nearly 25 per cent of the value of engineering exports.[2]

For analysis twenty four engineering export items have been taken on the basis of availability of data. Respective rates of import replenishment and cash assistance for those selected engineering items have also been collected from authentic sources for the years 1968–69, 1970–71, 1974–75 and 1978–79.

It is assumed that the actual impact of these incentives is seen for the next two consecutive years, so the average of engineering export for the next two consecutive years, from the years for which the subsidy rates are taken under consideration is calculated. Then the coefficients of correlation are found out between the rates of import replenishment and cash assistance with average engineering export respectively (Table 4).

TABLE 4
CORRELATION COEFFICIENTS OF ENGINEERING EXPORTS AND INCENTIVES

	1968–69	1970–71	1974–75	1978–79
Coefficient of correlation between import replenishment and average engg. export for the next two consecutive years	+0.496692 medium positive	+0.090433 insignificant positive	+0.384370 medium positive	−0.159381 low negative
Coefficient of correlation between cash assistance and average engg. export for the next two consecutive years	−0.002980 insignificant negative	+0.26864 low positive	−0.44138 medium negative	−0.08457 insignificant negative

[2]Mahanti, P. C.: "Engineering Exports in Reverse Gear", Commerce, Nov. 8–14, 1986, Bombay, p. 888.

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From analysis it is evident that the effect of import replenishment on the export of Indian engineering goods is more positively significant as compared with the effect of cash assistance provided for the same. But, truly speaking, import replenishment has not also been proved itself so efficient. The incentives policies in themselves are not faulty, but what is wrong is their implementation.

Conclusions

The main conclusions which have emerged are the following:

During the period of present study the growth of India's engineering exports has not been effected significantly by incentives provided by the Government.

Although the Government has provided various types of incentives for the export of engineering goods yet the growth rate shows erratic trends. Moreover share of India's engineering exports in world's total engineering exports is falling continuously. It means that growth rate of engineering exports of India is less than that of the world's engineering exports, while the growth rate of engineering exports of smaller countries is increasing every year inspite of their smaller resources and smaller number of technical manpower. It is concluded, therefore, that although Indian Government has provided a large number of incentives yet what is required is their proper implementation.

Export incentives in various forms have been in operation for the past several years and they appear to have had some beneficial effect in encouraging manufacturers and merchants to sell their products in foreign countries in preference to home market. But the manner in which the incentives schemes have been implemented has often come in for considerable criticism. It can be pointed out, for instance, that the incentives in most of the cases are inadequate and ineffective, that they are often suddenly changed to the disadvantage of the exporters and that there has also been inordinate delay in making the benefits available to exporters.

The Government diversified the promotional resources in recent years and these measures have proved themselves most effective. Actually they give basic support to the engineering exports.

In general it has been observed that export promotion measures provided in LDCs are a kind of patchwork. Most of their concern has been with possible internal contradiction and indirect distortion.[3] So is the case of India. Bhagwati and Desai have found in a study of Indian industrialisation two practical dangers of multifarious and differential export promotion; the various schemes may be hatched and applied "without any economic rationale" and the overall system becomes "One

[3]Porter, Richard C.: "Cup-Lip Slippage in the Export Promotion Policies of Underdeveloped Countries", Foreign Trade Review, Annual Number, Jan–Mar 1974, p. 351.

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of the indiscriminate export promotion with—even a perverse bias towards fixing the subsidy inversely to the competitive strength of the exportable commodity".[4] In short, Bhagwati and Desai argue that multifarious export promotion will succumb too easily to irrational, misguided 'political' and wasteful collection of Policies[5] which are inefficiently designed and implemented.[6]

Policy implications

The goal of exports—as a foreign trade in general—is to increase the availability of goods and services to the economy by trading those goods which a nation can produce at a low resource cost to itself for goods which it could produce only at a higher resource cost. Export promotion, then, should seek to promote only those exports which are produced efficiently.

There is an imperative need of the hour to push up the export efforts. In particular, it is necessary to generate sizeable surpluses in those products for which markets exist abroad, to strengthen infrastructural facilities, and to mount an aggressive marketing campaign. Efficient export managment is a sine qua non of any such effort and has to be assiduously fostered. I would like to suggest in this context, that rapid export expansion is only possible in an economy that is functioning smoothly and efficiently. National economic policies and programmes have to be geared to an economy that is performing better in every possible respect.

Above everything else our government must be energised and made more efficient. Decision-making should be quick and clear. A complete coordination between the different departments of the Government such as Commerce, Industry, Finance, Shipping, Railways, Civil Aviation. Coal, Power as also between the states and Centre is required. Export promotion should be taken as a national task and a common goal. All concerned authorities should work in unison to achieve the target. Only then can an organised programme be launched to make a major breakthrough in markets overseas.

The performance of the Indian engineering industry has been creditable. But the new phase that begins with 1981–82, however, is going to be far more difficult and challenging. It will call for an effort of unprecedented scale and attention on the part of the industry and the Government which

[4]Bhagwati, J. and Desai, P.: *India, Planning for Industrialisation and Trade Policies since 1951*, London, OUP. 1970, pp. 465–466.

[5]Bhagwati, J.: Theory and Practice of Commercial Policy Departures from unified Exchange Rates", Special papers in International Economics, no. 8, Princeton, International Finance Department, Jan., 1968, p. 59.

[6]Bhagwati, J. and Desai, P.: "op. cit.", p. 467.

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will have to be far more imaginative. The task is difficult but well worth trying. In fact there is hardly any alternative for us if we have to survive economically as a nation. It is not a mere platitude but a hard fact and we have to face it.

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BOOK REVIEWS

NEW WORLD ORDER SERIES: INTERNATIONAL COMMODITY POLICY

Editors: H. W. SINGER, NEELAMBER HATTI and RAMESHWAR TANDON; *published by* Ashish Publishing House, New Delhi, 1987; pp. 950; price Rs. 950

Reviewed by P. ABDUL KAREEM, Institute for Social and Economic Change, Bangalore–560072 (India)

This is the second volume in the New World Order Series with 35 articles on various aspects of commodity policy divided in 8 sections. Looking back we find that international action in the commodity field has a very long history since early 1950s. The editors recall the fact that J. M. Keynes in his concept of the International Trade Organisation suggested an agency for international commodity control to establish buffer stocks for main commodities. Prof. Kaldor recently reminded us of Keynes' advocacy of buffer stocks in primary commodities and the possibility of a commodity-based international currency. Really this was not very different from Integrated Commodities Programme (ICP) and the Common Fund as pursued by UNCTAD. The ICP sought international consensus on a wide range of products in the ICP Programme, with buffer stock schemes for 10 core commodities to avoid excessive fluctuations to be supported by a $ 6 billion Common Fund to help finance individual commodity agreements, but by the time of UNCTAD-5 (1979), it was possible to bring only one product (rubber) to the stage of negotiations. Really so far no more than six or seven agreements ever reached some stability and the $ 6 billion Common Fund was brought down to $ 400 million, the focus being on the 'second' window of $ 280 million voluntary contributions for diversification and improvement of commodities in the LDCs.

But the compensatory financing facility of IMF was a basic element of ICP. The EEC Stabex and Sysmin schemes were limited in various ways and proved inadequate. Since 1977 total amount outstanding under CFF Scheme exceeded $ 3 billion, which the Common Fund may hope to get for buffer stocks operations. Really due to hard positions by developed countries about access to processed commodities, very little could be achieved through market intervention with a view to improve the market forces in macro sense.

Looking back at the history of primary commodity prices during the last few years, the impact of 1980–81 recession further strengthened the empirical evidence for declining terms of trade.

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In the first part, Hans Singer deals with the sources of UNCTAD and reminds us of Keynes' advocacy of buffer stocks in Primary Commodities. A. Maizels wants a viable theory to be developed from the concept of 'market power' as shown in relative bargaining position of MNCs. L. N. Rangarajan, Indian Ambassador, provides penetrating analysis of the present position that we have to look, not only at international negotiations, but also at what happens in the market place. He also underlines disparity in negotiating power between two sides and the developed countries follow delaying policy and also manipulate market trends for their benefits. The LDCs are not well prepared with facts and do not trust each other enough to share information on MNCs.

In the second part, Paul Streeten suggests that more important than protection is the uneven distribution of productivity gains between primary and secondary producers. Gilbert looks at five commodity agreements now in operation and his judgment that coffee agreement has been more successful as internationally sanctioned price raising cartel than as stabilization agreement, is more controversial.

In the fourth part, Hans Singer feels that the burden of stability measures has always proved to be a sticky point. M. Democqe holds that a justification for compensation policy in case of fluctuations in export earnings rests on the hypothesis that instability of export proceeds is harmful. But Guillaumont holds that the export inability of the LDCs was greater during the 1960–70 period than during 1970–81, but instability is due both to export prices and the volume exported.

Empirical studies of J. Behrman show that on a priori basis, commodity price fluctuations have substantial impact on the LDC producers due to micro and macro non-linearities and high storage costs. Lancieri, in a study of 149 countries, tries to work out year-to-year fluctuations of exports separately from underlining trends.

J. Love finds that the policies of diversification of commodity composition of exports are advocated with a view to reducing instability in LDCs' export earnings.

Robert Stern compiled annual price series for major internally traded commodities, covering the period 1948 to 1975. The largest annual percentage rates of increase for the periods were recorded for petroleum (9.9 p.c.), cotton (9 p.c.), groundnut oil (8.8 p.c.), sugar (8.7 p.c.) and timber (8.5 per cent).

In the Sixth Part, J. Spraos suggests that powerful considerations can be provided in favour of the deterioration of terms of trade. While the statistical backing for the hypothesis was solid for the period 1871–1938, on which Prebisch initially relied, it is softened when pre- and post-second World War data are viewed together.

Rameshwar Tandon suggests that the centre-periphery theory suggested a single system, hegemonically organised; implicit here is the idea that

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development has been 'unequal' from the beginning. A centre-periphery paradigm was intended to provide explanation of development process and the problem lies in the fact that it has not been possible to expand the 'capacity to import' due to centre's reluctance to open their markets to imports from the periphery.

In the last part, N. Kaldor holds that if no special action is taken, the longer-run prospects for the LDCs will continue to be unfavourable. Really the world market prospects for many tropical products and raw-materials produced by the LDCs are unfavourable.

D. Avramovic underlines again that export commodity prices of the LDCs are now at their lowest point since 1980–81. No international action to check decline of commodity prices or provide sufficient compensatory finance for loss of income has been undertaken.

Indra Wahab looks at the question whether it is worth while to intervene in commodity markets by pursuing a 'partial' price stabilization policy, based on buffer stock operations. An effort is also made to determine possible effects of price stabilization policy by comparing average instability in 'actual' and 'calculated' export revenues on country level.

In the last paper, G. Helleiner finds that export earning instability and the imperfections of international financing mechanisms were evident in the 1970s and 1980s. But few believe that market intervention can withstand the fundamentals of market price determination for a very long time. This volume should be very useful for the ongoing discussions on policy issues between North and South under the Uruguay Round of negotiations.

NEW WORLD ORDER SERIES: TECHNOLOGY TRANSFER BY MULTINATIONALS

By HANS SINGER, NEELAMBER HATTI and RAMESHWAR TANDON; *published by* Ashish Publishing House, New Delhi, 1988; pp. 924; price Rs. 600

Reviewed by P. ABDUL KAREEM, Institute for Social and Economic Change, Bangalore–560072 (India)

This is the third volume in the series. Recently two issues about technology transfer were very controversial indeed—(i) the appropriateness of technology transferred, and (ii) the availability and cost to the purchasers, the learning effects, etc. The problem in NIEO context is that while technological progress has been made in all spheres of economic

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activities in the last three decades, it is also very obvious that the benefits of technical progress are not shared equitably by all countries. The NIEO declaration does not dispute the role of foreign private investment; it is the operational features of foreign enterprise participation that are resented.

Looking back, we can say that technology gaps are there everywhere. Moreover the marginal cost of technology transfer is very low, compared to initial cost of development. Due to imperfect nature of technology markets, the LDCs get very poor deal in technology transactions. As several UNCTAD studies showed that besides direct payments, technology imports involve 'hidden' costs, relating to over-pricing of various inputs and equipment supplied. The MNCs also admit about these practices. Recently focus of debate shifted to impact of technological dependence on the growth of local technological capacities of LDCs. As Hans Singer recently pointed out, the unequal bargaining position affects all relations between investing and borrowing countries.

In the first part, Hans Singer finds that the question of terms and conditions of technology transfer and suitability of the transferred technology are interrelated. To Frances Stewart, technology is really 'exogenous' and to identify the extent of over-pricing, we have to work out a fair price. The growth of local technological capacities is more likely to occur where technology imports occur at arm's length and not through MNCs.

In the second part, F. Clairmonte suggests that the Conglomerates get major gains from oligopolistic power. The issue of TNC aggrandizement blurred the conventional tripartite division of sectors into primary, secondary and tertiary. To R. Green, third-world MNCs differ from old MNCs in several respects e.g. the size, dominance, bargaining power, etc.

But C. Vaitsos holds that the MNCs manufacturing activities have not directly contributed to net income generation in the LDCs. In case of manufacturing, instead of being market creators, the MNCs tend to be market followers. But A. G. Frank believes with Marx that innovation and investment carry growth, in view of rising profitability of implication is bankruptcy of Keynesianism and inefficiency of monetarism, it has political consequences both for the right and the left.

Moreover Sanjayalall provides evidence on TNCs in the form of industrial project exports, construction and consultancy exports, direct investment abroad etc. Where the MNCs do not invest in the LDCs, as Helleiner observes, the LDCs are likely to deal with them in the acquisition of technology or markets.

K. Subramanian and Pillai underline the point that technology transfer by traditional suppliers could not close the technology gap because there was indiscriminate import of technology that inhabited various 'learning' effects.

M. R. Bhagavan looks at the role of three subsectors of capital good

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sector—machine tools, electrical equipment and chemicals. The proximate interrelation between investment and structural change and real sectoral growth rates are analysed. But Ashok Desai distinguishes between four types of technological capability, the capability in the purchase of technology—plant operations, duplication and innovation. The Indian buyers were found to be less inhibited by lack of knowledge, as by inability to attract technology sellers of their choice.

In the fourth part, R. Kaplinsky observes that in the LDCs, there is a common feature in export procession foreign investment, since large MNCs have the upper hand in bargaining the terms of entry with the host governments. C. Staelin in his innovative study develops a computer simulation model with a view to look at technological change in a dual economy.

In the fifth part, C. Vaitosos explores the possibility of revising patent system due to various inadequancies of technology markets. But R. Gerster suggests that the LDCs, in their own interest, should follow the course set in the revision of the Paris convention, otherwise collective leaving of the convention should be envisaged.

In the 6th part, D. Thompson suggests that the licensing of industrial property rights can be a profitable activity: The objective of a code of conduct is to strike a fair balance between rights and interests of the suppliers of technology and the LDC recipients. Samuel Paul also suggests that the LDCs are likely to rely more and more on policy interventions to regulate international business under their jurisdiction rather than action as forced divestments.

In the concluding part, P. Maitra looks at economic 'interdependence' effects of structural change. The redeployment effects of industrial imports on jobs in some developed countries reveal nature of the problem. Peter Gray also wonders whether the strains in the North-South debate on technology can be reduced by recognition of concerns of the north for continued flow of R & D expenditure.

In the last paper, Edward Chen looks at technology exports in a wider context of plant exports, foreign direct investment, other technical services. While the experience of Latin American countries about FDI has not been very pleasant, it is also a fact that the East and South-East Asian countries have benefited from the presence of foreign direct investments, etc.

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WORLD BANK AND THIRD WORLD COUNTRIES OF ASIA

By MAHENDRA PAL; *published by* National Publishing House, New Delhi, 1985; price Rs. 200

Reviewed by DR. AJAY NARAIN, Department of Commerce, Dayal Singh College, University of Delhi, New Delhi

The role of the foreign aid in helping developing countries to overcome limitations arising from scarcity of capital, technology, and foreign exchange has been one of the most controversial subjects in the developing Third World economies. Different viewpoints regarding the type of development aid needed by developing countries have been the major source of controversy. A new dimension has been added in the post-war period with the emergence of transnational corporations and multilateral development banks such as the World Bank and the IMF as the main vehicles of foreign investment and technology. Their gigantic capacity to influence the political, economic and social life has also called forth a scrutiny of the role of foreign aid in developing countries. Founded as an agent for the transfer of resources from the non-socialist developed countries to the Third World to finance mainly infrastructure projects, it is now attempting to turn itself into a multilateral development institution dedicated to both financing and influencing the direction of socio-economic changes of Third World countries. The World Bank has been fortunate since its inception in 1945. Its founders at Bretton Woods were able to provide it not only with an important set of international responsibilities, but also with funds to fulfil them.[1] The Bank is now the largest single source of development finance. The important position of the Bank results from the failure of the developed countries to meet the financial needs of the developing countries. Bilateral assistance declined due to disillusionment in developing countries with the meagre results of aid.

The significance of World Bank study has never been as important as in the eighties. It is during this period that we have witnessed commodity booms, recessions, oil price hikes, stagnation in growth rates, protectionism, severe debt crisis, capital outflows, adjustments, Bretton Woods conditionality cut in ODA.

While considerable investigations have been carried out at the World Bank's headquarters in Washington and individual studies in USA and U.K., especially about the functioning of the Bank in the Third World countries, it is only recently that the need for a detailed analysis of the Bank's operations in the development process of developing countries has gained attention. The book under review "*World Bank and the Third World Countries of Asia*" is the timely study which has emerged at such a

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time when the Third World and World Bank both are facing serious economic problems. This book has a wider interest than its title might suggest.

In all the book contains 13 chapters including a postscript. He has devoted 3/4th of the book in discussing the Bank's lending operations in the developing countries particularly in the Indian sub-continent, where 50% of the world's poor reside. To date there has been no systematic study on the World Bank and its relationship with the developing Asian economy. The present study has made an attempt to fill this gap.

In chapters I and II the author sketches the evolution of the Bank, its organisational structure, financial resources and objectives. Together, these two chapters provide background material on the external environment within which the World Bank has to function. Dr. Pal concludes that over the years the Bank remained a centralised institution. As long as the present situation continues, the Bank will retain its image of being essentially a Western Bank. In chapter III he takes analytical approach to the Bank's lending criteria. He recommends the relaxation in the Bank's conservative lending criteria and increased decentralisation.

Since the late 1940s, the World Bank has been involving itself in the problems of development assistance. Today, the World Bank represents, by far, the largest single source of organised lending to the Third World countries. During 1950s, its emphasis was on financing infrastructural projects in the Third World countries for the promotion of long-term development. During 1960s the Bank shifted towards social sectors such as population, education, water and sewerage. During 1970s the Bank, however, shifted its emphasis towards agriculture and rural development. During 1980s the Bank has actively responded to the debt crisis and adjustment policies (i.e. from the micro level to the macro level).

Regarding the Bank's operations in developing Asia the study points out that the Bank's development assistance has been in line with the development model adopted by the Asian developing countries. It also points out that the Bank is the only development agency which has given increasing attention to the directly poverty-oriented activities over the last decade. But it should be pointed out here that the trend has been a general one among multilateral and bilateral agencies alike.

The study notes that advanced developing countries (ADCs) of East and West Asia are independent of concessionary aid especially from IDA; however, the IBRD could continue its lending to these countries. IDA's scarce resources are recommended for South-Asian countries due to concentration of poverty and explosive population in this region. In chapter on *West Asia* four countries viz. Iran, Iraq, Israel and Lebanon have been selected for detailed analysis of Bank's lending. Iran remained the major beneficiary. Before 1973 most of the West-Asian countries were the borrowers of the World Bank, but after 1973, due to rise in the oil prices,

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these countries are now in a position to invest their surpluses in the World Bank's bonds. Iran has already taken steps in this direction (pp. 119–120).

In chapter on *East Asia*, the countries selected for the study are Malaysia, Philippines, Thailand and Republic of South Korea. The study notes that in Philippines foreign assistance has been an important factor in the economic development of this country. The Bank's share has been the largest among the multilateral institutions. For example, during the period of 1952–60, the Bank provided 96% of the total project loans advanced by different donor countries to this country. In Thailand, during 1950–58, the Bank's share was about 56% of total foreign loans (p. 169). Over all in this region, major portion (i.e. 55% of the total IBRD's lending) has gone for the development of transportation, electric power and development finance companies (DFCs). Socially oriented sectors like education, population, urbanization and tourism were advanced 15% of the total lending (p. 167). In this region, IDA's lending also has been in small amount.

In the chapter on *South Asia*, the Bank's role has been discussed in Burma, Pakistan and India. From regional distribution points of view, Asia accounted for the larger share in the IBRD's global lending, while South Asia, the most thickly populated and poverty ridden segment of the world, received only 7%. India remained the main beneficiary since the very beginning of the Bank. The Bank's lending has been noted in the study to be in the context of "compelling economic requirements" of these countries. The author's main focus has been mainly on the productivity of loans. The study, however, puts less emphasis on detailed analysis of terms and conditions and project execution procedure which causes a great inconvenience to the needy borrowers and delay the procedure.

Leverage Function

Since the very beginning, the Bank has been the subject of criticism in regard to its policy of influencing the internal matters. Recently, two books on Bangladesh economy have nicely revealed the facts regarding the World Bank/IMF pressure to devalue Bangladesh currency.[2]

The study highlights some cases of leverage imposed by the Bank from time to time on the macroeconomic policies in some countries like Iran, Thailand, Burma and India. In Iran the Bank played an active role both in shaping the investment programme of Plan Organisation and in advising on monetary and fiscal policy (p. 107). In Thailand, the principal areas of Bank's influence on broad economic policy were in the management of external debt, domestic financial policies pursued by the Government and in the planning of development. During the construction period of the Yanhee project, the Bank placed a condition of obtaining Bank's permission for any further net increase in its foreign debt. It also imposed

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a condition of Government's internal borrowing from the Central Bank. In addition, World Bank Missions strongly recommended the Government's reliance on private enterprises in industrial development. Moreover, following the Bank's recommendations, the Thai government also established its economic planning agency—the "National Economic Development Board" (p. 166).[3]

In the case of Burma, several missions visited the country during the 1950s and some ideological differences emerged. The study notes that "the Bank did not sympathetically co-operate with some of Burma's basic policies and programmes, a sense of co-operation was lacking and apparently showed a bias against manufacturing setup in the public sector" (p. 178). However, Burma received several credits from the IDA, softwindow of the Bank.

India and the World Bank

India is such a country where the Bank/IDA have operated largely. For example, India being the largest borrower accounts for 15% of the total Bank/IDA lending.[4] The study points out that the Bank's assistance to India has been consistent with India's needs and developmental priorities. India has influenced the working of the Bank as much as the Bank has influenced Indian economy. The author tries to make it clear that the Bank and India have learnt from experience.

It cites instances of how the Bank has influenced India's economic development. During the First Five-Year Plan, a number of World Bank technical and economic missions came to the country to examine terms and conditions of IBRD assistance to the Industrial Finance Corporation to be set up in the public sector. The Bank, however, helped finance the privately owned (I.C.I.C.I.) instead of the I.F.C. in the public sector.

During the Second Plan period, there was an ideological difference between the Indian Government and the Bank. The Bank was unwilling to finance the public sector heavy industry projects and instead the Bank advanced loans for building up social and economic infrastructure.

A third example of IBRD's influence was in 1958, when there was a shortage of foreign exchange in India. A World Bank mission urged Indian planners to lay more emphasis on agriculture rather than industry and suggested that the state should limit its industrial responsibility.

Regarding the visit of the Bell Commission to India towards the end of 1964 to assess the country's economic development, the author notes that the Commission had recommended devaluation of the rupee, greater emphasis on agriculture and liberalisation of the import policy. However, the Mission was not so successful in reshaping the Indian agricultural policy as in dramatising its technological and financial needs. The Indian case represents, perhaps, the strongest attempt the Bank has ever made to use its leverage as well as the leverage. Aid India Consortium associates to

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induce changes in aggregative economic policies in a borrowing country.

The study, however, points out that during the past couple of years, the Bank's bias against extending assistance to public sector industrial units has virtually disappeared. In this regard, it cites the cases of loans to the Bombay High for oil exploration, and the Cochin fertiliser plant and the Phulpur fertiliser unit being set up in the co-operative sector (p. 209).

Debt Problem

Now the Third World debt is around more than $ 1.20 trillion. Latin America shares about 40%. Over the years a number of schemes have been designed but could not get success to solve the crisis. Due to shortage of external finance, these countries are unable to finance their external debt service. Debt crisis has become a highly debatable issue among the economists. The study offers a detailed and clear idea of World Bank's intervention for the solution of the crisis. He strongly supports the idea where the World Bank, a strong institution, should become an intermediary between commercial banks and debtor nations by swapping its bonds for the LDCs debt held by the commercial banks. Through the swapping of LDCs loans for World Bank bonds, short term maturities would increase from 15 to 20 years; thus the private bankers would be financially sounder. However, there is a controversy on the issue of using Bank's bonds because of fall in their credit rating. For this he recommends an increase in General Capital so that the Bank could remain a Development Agency (pp. 339–40). The Bank due to IDA is still showing positive net transfer of resources to the developing countries while IMF is not.[5]

World Bank Under Attack

Given the ideological thrust of USA, the Bank (especially IDA) is an obvious target—especially in the light of changes in its philosophy of lending over the 1970s when the IDA advanced major share of its lending for poverty oriented projects. In the post-script, the study notes that recently the US administration and monetarists like Milton Friedman charged the World Bank that it was in the business of financing "Socialism" throughout the world. The study attacks the US allegations and says that Bank/IDA gives more support to those 10 countries which are consistent with the US interest (p. 351). The study also warns that the future of the World Bank itself will face a question mark. The value of the World Bank's bonds would decline, if there were any threat of withdrawal by US. Its whole operations depend on a delicate balance between the IDA's concessional finance and the hard loans offered by the Bank's main organ, the IBRD. World system itself would be seriously impaired if the IDA is not kept open. Its closure could suffocate the Third World.

All the recommendations made in the study like increasing gearing ratio of the Bank from 1 : 1 to 2 : 1, relaxation in lending criteria,

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decentralization, universalisation of membership, delinking the IDA from the IBRD, increasing concessional assistance are very clear. But it must be pointed out that the USA and other developed countries have shown their disinterest in these institutions and without structural changes in the functioning of the Bank nothing can be achieved. Over the years, there has been a growing demand of the Third World countries for calling the International Monetary and Financial Conference (Bretton Woods type), but the USA and other developed countries have shown no interest in this direction because they think New Bretton Woods as a real threat to the existing system.

It is very interesting to note that in spite of detailed analysis of World Bank's functioning in the Third World since its inception in 1945, the author has not tried to touch upon the Bretton Woods harsh conditionality which has become an issue of much interest in general and a subject of criticism especially from Latin American countries. The author has also overlooked detailed study of IDA's operations in India. Moreover, he has not studied the impact of the Bank's operations on income distribution and employment generation, while this should have been the major objective of the study which has appeared in the decade of 1980s. Nevertheless, the author deserves credit for successfully highlighting some of the important issues and hard realities pertaining to the subject. He has largely succeeded in bringing out as to how the massive Bank's aid to India has been playing a major role in shaping the development of India. But one must bear in mind that now India is not a helpless country which could easily be influenced by any major donor/institution in the world. The study's principal conclusion is that the record of World Bank aid has on balance been positive. It is a conclusion which was foreseeable but this does not matter. What matters is the range of evidence that the author produces in support of his view.

Pal's book is a must for any student of Third World and Asian Affairs. It would serve as a good starting point for taking up new and in-depth studies of the various aspects of Bank's lending policies in the Asian economy, especially in Indian economy. It would certainly enlighten and inspire academic exercises and scholastic studies on World Bank and its relationship with the Third World countries.

The approach of the book is eclectic, policy oriented, analytic. Clarity of thought, economy of expression and objectivity in presentation are the commendable features of the book.

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ASIAN DATA BANK

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Data Profile of Asian Economies

(continued from Vol. 6, No. 1)

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TABLE 15
FLOW OF PUBLIC AND PRIVATE EXTERNAL CAPITAL

Sl. No.	Countries	Disbursements (millions of dollars)				Repayment of principal (millions of dollars)				Net flow[a] (millions of dollars)			
		Public and publicly guaranteed		Private non-guaranteed		Public and publicly guaranteed		Private non-guaranteed		Public and publicly guaranteed		Private non-guaranteed	
		1970	1986	1970	1986	1970	1986	1970	1986	1970	1986	1970	1986
	Low-income Countries												
1.	Bhutan	—	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	1	142	0	0	2	18	0	0	−2	124	0	0
3.	Bangladesh	0	976	0	0	0	162	0	0	0	814	0	0
4.	Burma	22	379	0	0	13	159	0	0	9	220	0	0
5.	India	931	3,642	25	849	355	1,582	25	773	576	2,061	0	76
6.	China	0	6,890	0	0	0	1,367	0	0	0	5,522	0	0
7.	Pakistan	489	1,113	3	19	113	708	1	15	377	405	2	4
8.	Sri Lanka	66	501	0	8	29	164	0	6	36	337	0	2
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—	—	—
	Middle-income economies												
	Lower middle-income												
11.	Indonesia	441	4,311	195	550	59	2,385	61	532	383	1,926	134	18
12.	Philippines	141	1,208	276	110	74	620	186	125	67	588	90	−15
13.	Thailand	51	1,302	169	587	23	1,192	107	850	28	110	62	−262
	Upper middle-income												
14.	Malaysia	45	1,300	12	901	47	1,055	9	803	−2	244	3	97
15.	Korea, Rep. of	444	3,235	32	1,666	198	4,664	7	2,699	246	−1,428	25	−1,033
16.	Hong Kong	—	—	—	—	—	—	—	—	—	—	—	—
17.	Singapore	61	447	—	—	6	247	—	—	55	200	—	—
18.	Iran, Islamic Rep.	—	—	—	—	—	—	—	—	—	—	—	—
19.	Iraq	—	—	—	—	—	—	—	—	—	—	—	—

[a]Disbursements less repayments of principal may not be equal to net flow, because of rounding.

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[a]Disbursements less repayments of principal may not be equal to net flow, because of rounding.

TABLE 16
TOTAL EXTERNAL PUBLIC AND PRIVATE DEBT AND DEBT SERVICE RATIOS

Sl. No.	Countries	Total long-term debt disbursed and outstanding: Millions of dollars		Total long-term debt disbursed and outstanding: As percentage of GNP		Total interest payments on long-term debt (millions of dollars)		Total long-term debt service as percentage of: GNP		Total long-term debt service as percentage of: Export of goods and services	
		1970	1986	1970	1986	1970	1986	1970	1986	1970	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	—	—	—	—	—	—
2.	Nepal	3	711	0.3	27.7	0	13	0.3	1.2	3.1	9.4
3.	Bangladesh	0	7,282	0.0	47.5	0	108	0.0	1.8	0.0	25.1
4.	Burma	106	3,664	4.9	45.3	3	88	0.7	3.0	12.2	55.4
5.	India	8,118	34,511	15.2	15.1	204	1,359	1.1	1.6	27.3	24.6
6.	China	—	17,193	—	6.3	—	1,014	—	0.9	—	7.8
7.	Pakistan	3,069	11,794	30.6	36.0	77	358	1.9	3.3	27.7	27.2
8.	Sri Lanka	317	3,544	16.1	55.4	12	121	2.1	4.6	10.9	18.4
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	2,904	35,729	29.9	49.7	45	2,363	1.7	7.3	13.9	33.1
12.	Philippines	1,544	21,622	21.8	72.2	44	1,092	4.3	6.1	23.0	21.3
13.	Thailand	726	14,130	11.1	35.2	33	1,031	2.5	7.7	13.9	25.4
	Upper middle-income										
14.	Malaysia	440	19,650	10.8	77.0	25	1,394	2.0	12.7	4.5	20.0
15.	Korea, Rep. of	2,015	34,304	22.5	36.1	76	2,896	3.1	10.8	20.4	24.4
16.	Hong Kong	—	—	—	—	—	—	—	—	—	—
17.	Singapore	—	—	—	—	—	—	—	—	—	—
18.	Iran, Islamic Rep.	—	—	—	—	—	—	—	—	—	—
19.	Iraq	—	—	—	—	—	—	—	—	—	—

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TABLE 17
EXTERNAL PUBLIC DEBT AND DEBT SERVICE RATIOS

Sl. No.	Countries	External public debt outstanding and disbursed				Interest payments on external public debt (millions of dollars)		Debt service as percentage of			
		Millions of dollars		As percentage of GNP				GNP		Export of goods and services	
		1970	1986	1970	1986	1970	1986	1970	1986	1970	1986
	Low-income economies										
1.	Bhutan	—	—	—	—	—	—	—	—	—	—
2.	Nepal	3	711	0.3	27.7	0	13	0.3	1.2	3.1	9.4
3.	Bangladesh	0	7,282	0.0	47.5	0	108	0.0	1.8	0.0	25.1
4.	Burma	106	3,664	4.9	45.3	3	88	0.7	3.0	12.2	55.4
5.	India	8,018	31,913	15.0	14.0	198	1,115	1.0	1.2	25.8	17.9
6.	China	—	17,193	—	6.3	—	1,014	—	0.9	—	7.8
7.	Pakistan	3,064	11,764	30.6	35.9	77	355	1.9	3.2	23.6	26.8
8.	Sri Lanka	317	3,448	16.1	53.9	12	113	2.1	4.3	10.9	17.5
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	2,443	31,901	25.2	44.4	24	2,047	0.9	6.2	7.0	27.8
12.	Philippines	625	19,828	8.8	66.2	26	962	1.4	5.3	7.5	18.3
13.	Thailand	324	11,023	4.9	27.4	16	751	0.6	4.8	3.3	16.1
	Upper middle-income										
14.	Malaysia	390	16,759	9.5	65.7	22	1,173	1.7	8.7	3.8	13.7
15.	Korea, Ref. of	1,840	29,108	20.6	30.6	71	3,332	3.0	7.4	19.5	16.7
16.	Hong Kong	—	—	—	—	—	—	—	—	—	—
17.	Singapore	152	2,120	7.9	11.8	6	174	0.6	2.3	0.6	1.4
18.	Iran, Islamic Rep.	—	—	—	—	—	—	—	—	—	—
19.	Iraq	—	—	—	—	—	—	—	—	—	—

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TABLE 18
OFFICIAL DEVELOPMENT ASSISTANCE: RECEIPTS

Sl. No.	Countries	Net disbursements of ODA from all sources — Millions of dollars							Per capita (dollars)	As percentage of GNP
		1980	1981	1982	1983	1984	1985	1986	1986	1986
	Low-income economies									
1.	Bhutan	8	10	11	13	18	24	40	30.2	19.3
2.	Nepal	163	181	200	201	198	236	301	17.7	11.7
3.	Bangladesh	1,282	1,104	1,346	1,067	1,200	1,151	1,455	14.1	9.5
4.	Burma	309	283	319	302	275	356	416	10.9	5.1
5.	India	2,147	1,910	1,545	1,741	1,610	1,527	2,059	2.6	0.9
6.	China	66	477	524	669	798	940	1,134	1.1	0.4
7.	Pakistan	1,130	764	849	668	683	735	952	9.6	2.9
8.	Sri Lanka	390	377	416	473	466	484	571	35.4	8.9
9.	Afghanistan	32	23	9	14	7	17	2	0.1	—
10.	Viet Nam	228	242	136	106	110	114	147	2.3	—
	Middle-income economies									
	Lower middle-income									
11.	Indonesia	949	975	906	744	673	603	711	4.3	1.0
12.	Philippines	300	376	333	429	397	486	956	16.7	3.2
13.	Thailand	418	406	389	431	474	481	496	9.4	1.2
	Upper middle-income									
14.	Malaysia	135	143	135	177	327	229	193	12.0	0.8
15.	Korea, Rep. of	139	330	34	8	−37	−9	−18	−0.4	0.0
16.	Hong Kong	11	9	9	9	14	20	18	3.4	0.0
17.	Singapore	14	22	20	15	41	24	30	11.5	0.2
18.	Iran, Islamic Rep.	31	9	3	48	13	16	27	0.6	—
19.	Iraq	9	9	6	13	4	26	33	2.0	—

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TABLE 19

CENTRAL GOVERNMENT EXPENDITURE

Sl. No.	Countries	Percentage of total expenditure												Total expenditure (percentage of GNP)		Overall surplus/ deficit (percentage of GNP)	
		Defence		Education		Health		Housing amenities social security and welfare		Economic services		Others					
		1972	1986	1972	1986	1972	1986	1972	1986	1972	1986	1972	1986	1972	1986	1972	1986
Low-income economies																	
1.	Bhutan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	7.2	6.2*	7.2*	12.1*	4.7	5.0*	0.7	6.8*	57.2	48·5*	23.0	21.5*	8.5	19.7*	−1.2	−8.1*
3.	Bangladesh	5.1	11.2*	14.8*	9.9*	5.0	5.3*	9.8*	0.6*	39.3*	41.6*	25.9*	31.3*	9.4*	10.9*	−1.9*	−0.2*
4.	Burma	—	8.1*	—	9.0*	—	1.7*	—	6.2*	—	7.7*	—	67.3*	—	34.0*	—	−9.6*
5.	India	—	18.4	—	2.1	—	2.1	—	5.6	—	23.4	—	48.5	—	16.4	—	−8.1
6.	China	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	Pakistan	39.9*	33.9*	1.2*	3.2*	1.1*	1.0*	3.2*	10.5*	21.4*	25.8*	33.2*	25.6*	16.9*	23.1*	−6.9*	−9.5
8.	Sri Lanka	3.1*	8.0	13.0*	8.4	6.4*	4.0	19.5*	11.1	20.2*	10.2	37.7*	58.3	25.4*	30.5	−5.3*	−9.2
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Middle-income economies																	
Lower middle-income																	
11.	Indonesia	18.6*	9.3	7.4*	8.5	1.4*	1.9	0.9*	1.4	30.5*	19.3	41.3*	59.6	15.1	26.9	−2.5	−3.9
12.	Philippines	10.9	11.9*	16.3	20.1*	3.2	6.0*	0.7	1.6*	17.6	44.9*	51.3	15.6*	13.4	10.8*	−2.0	−1.9*
13.	Thailand	20.2	20.2*	19.9	19.5*	3.7	5.7*	7.0	4.6*	25.6	22.6*	23.5	27.4*	17.2	21.7	−4.3	−5.6*

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13.	Thailand	20.2	20.2*	19.9	19.5*	3.7	5.7*	7.0	4.6*	25.6	22.6*	23.5	27.4*	17.2	21.7	−4.3	−5.6*
	Upper middle-income																
14.	Malaysia	18.5	—	23.4	—	6.8	—	4.4	0·0	14.2	—	32.7	—	26.5	36.6	−9.4	−7.2
15.	Korea, Rep. of	25.8	29.2	15.8	18.1	1.2	1.5	5.9	7.2	25.6	16.2	25.7	27.7	18.0	17.8	−3.9	−0.1
16.	Hong Kong	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17.	Singapore	20.1	22.5*	9.0	21.6*	4.5	6.5*	2.2	5.7*	5.7	17.7*	58.6	26.0*	29.5	26.5*	1.3	2.0
18.	Iran, Islamic Rep.	24.1	—	10.4	—	3.6	—	6.1	—	30.6	—	25.2	—	30.8	—	−4.6	—
19.	Iraq	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	High-income oil exporters																
20.	Saudi Arabia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21.	Kuwait	8.4	12.8	15.0	12.6	5.5	7.1	11.9	20.5	16.6	22.4	42.5	24.6	34.4	41.5	17.4	23.6
22.	United Arab Emirates	24.4	45.3*	16.5	9.7*	4.3	6.2*	6.1	5.0*	18.3	5.1*	30.5	28.7*	4.3*	17.5*	0.3*	—
	Industrial market economies																
23.	Japan	—	—	—	—	—	—	—	—	—	—	—	—	12.7	17.4*	−1.3	−4.9*

*Figures are for years other than these specified.

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TABLE 20
CENTRAL GOVERNMENT CURRENT REVENUE

Sl. No.	Countries	Percentage of total current revenue												Total current revenue (percentage of GNP)	
		Tax revenue										Non-tax revenue			
		Taxes on income, profit, and capital gain		Social security contributions		Domestic taxes on goods and services		Taxes on international trade and transactions		Other taxes					
		1972	1986	1972	1986	1972	1986	1972	1986	1972	1986	1972	1986	1972	1986
	Low-income economies														
1.	Bhutan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2.	Nepal	4.1	8.0*	0.0	0.0	26.5	40.7*	36.7	27.7*	19.0	6.2*	13.7	17.4*	5.2	9.2*
3.	Bangladesh	3.7*	9.6*	0.0	0.0	22.4*	28.1	18.0*	22.3*	3.8*	5.7*	52.2*	34.3*	8.6*	9.4*
4.	Burma	28.7*	4.8*	0.0	0.0	—	—	13.4*	15.9*	34.2*	40.0*	23.8*	39.3*	12.4*	13.7*
5.	India	—	14.8	—	0.0	—	38.0	—	26.9	—	0.4	—	19.9	—	13.3
6.	China	—	—	—	—	—	—	—	—	—	—	—	—	—	—
7.	Pakistan	13.6*	11.9*	0.0	0.0	35.9*	33.0*	34.2*	31.0*	0.5*	0.3*	15.8*	23.8*	12.5*	16.2*
8.	Sri Lanka	19.1*	13.0	0.0	0.0	34.7*	40.1	35.4*	29.7	2.1*	1.8	8.7*	15.5	20.1*	20.6
9.	Afghanistan	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10.	Viet Nam	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Middle-income economies														
	Lower middle-income														
11.	Indonesia	45.5	40.4	0.0	0.0	22.8	23.3	17.6	4.9	3.5	1.8	10.6	29.7	13.4	23.1
12.	Philippines	13.8	26.6*	0.0	0.0	24.3	36.4*	23.0	23.7*	29.7	2.5*	9.3	10.8*	12.4	11.5*
13.	Thailand	12.1	20.7*	0.0	0.0	46.3	43.9*	28.7	22.2*	1.8	2.0*	11.2	11.1*	12.9	16.3*

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13. Thailand	12.1	20.7*	0.0	0.0	46.3	43.9*	28.7	22.2*	1.8	2.0*	11.2	11.1*	12.9	16.3*
Upper middle-income														
14. Malaysia	25.2	43.0	0.1	0.7	24.2	17.6	27.9	16.6	1.4	2.2	21.2	19.8	20.3	29.3
15. Korea, Rep. of	29.1	25.2	0.7	1.6	41.8	42.7	10.7	14.9	5.2	3.9	12.5	11.7	13.2	18.8
16. Hong Kong	—	—	—	—	—	—	—	—	—	—	—	—	—	—
17. Singapore	24.4	27.0*	0.0	0.0	17.6	13.8*	11.1	3.6*	15.5	15.1*	31.4	40.6*	21.6	27.0*
18. Iran, Islamic Rep.	7.9	—	2.7	—	6.4	—	14.6	—	4.9	—	63.6	—	26.2	—
19. Iraq	—	—	—	—	—	—	—	—	—	—	—	—	—	—
High-income oil exporters														
20. Saudi Arabia	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21. Kuwait	68.8	0.6	—	—	19.7	0.4	1.5	1.3	0.2	0.0	9.9	97.7	55.2	66.2
22. United Arab Emirates	0.0	—	0.0	—	0.0	—	0.0	—	0.0	—	100.0	—	0.2*	—
Industrial market economies														
23. Japan	64.8	67.4*	0.0	0.0	22.6	18.9*	3.5	1.7*	6.8	7.5*	2.4	4.6*	11.2	12.6*

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TABLE 21
POPULATION GROWTH AND PROJECTIONS

Sl. No.	Countries	Average annual growth of population (per cent)			Population (millions)			Hypothetical size of stationary population (millions)	Assumed year of reaching net reproduction rate of	Population momentum
		1965–80	1980–86	1986–2000	1986	1990	2000			1985
	Low-income economies									
1.	Bhutan	1.6	2.0	2.2	1	1	2	4	2035	1.7
2.	Nepal	2.4	2.6	2.5	17	19	24	63	2035	1.8
3.	Bangladesh	2.7	2.6	2.5	103	114	145	342	2030	1.9
4.	Burma	2.3	2.0	2.3	38	42	52	102	2020	1.7
5.	India	2.3	2.2	1.8	781	846	1,002	1,698	2010	1.7
6.	China	2.2	1.2	1.4	1,054	1,117	1,279	1,695	2000	1.6
7.	Pakistan	3.1	3.1	3.0	99	113	150	423	2035	1.8
8.	Sri Lanka	1.8	1.5	1.5	16	17	20	30	2005	1.7
9.	Afghanistan	2.4	—	—	—	—	—	—	—	—
10.	Viet Nam	—	2.6	2.4	63	70	88	168	2015	1.8
	Middle-income economies									
	Lower middle-income									
11.	Indonesia	2.3	2.2	1.8	166	178	207	335	2005	1.8
12.	Philippines	2.9	2.5	2.3	57	62	76	137	2015	1.8
13.	Thailand	2.7	2.0	1.6	53	56	65	99	2000	1.8
	Upper middle-income									
14.	Malaysia	2.5	2.7	1.9	16	18	21	33	2005	1.8
15.	Korea, Rep. of	1.9	1.4	1.2	41	44	49	65	1985	1.6
16.	Hong Kong	2.1	1.2	1.9	5	6	6	7	2020	1.4

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15. Korea, Rep. of	1.9	1.4	1.2	41	44	49	65	1985	1.6
16. Hong Kong	2.1	1.2	1.0	5	6	6	7	2030	1.4
17. Singapore	1.6	1.1	0.8	3	3	3	3	2030	1.4
18. Iran, Islamic Rep.	3.2	2.8	3.0	46	52	69	169	2025	1.9
19. Iraq	3.4	3.6	3.6	16	19	27	75	2025	1.9
High-income oil exporters									
20. Saudi Arabia	4.6	4.1	3.8	12	14	20	54	2025	1.8
21. Kuwait	7.0	4.4	2.9	2	2	3	5	2015	1.8
22. United Arab Emirates	16.1	5.6	2.8	1	2	2	4	2020	1.4
Industrial market economies									
23. Japan	1.2	0.7	0.5	121	124	129	119	2030	1.1

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TABLE 22
HEALTH AND NUTRITION

Sl. No.	Countries	Population per Physician		Population per Nursing person		Daily calorie supply per capita		Babies with low birth weights (per cent)
		1965	1981	1965	1981	1965	1985	1984
	Low-income economies							
1.	Bhutan	—	19,160	—	8,310	2,904	2,477	—
2.	Nepal	46,180	28,780	—	33,390	1,931	1,997	—
3.	Bangladesh	8,400	9,690	—	19,370	1,964	1,804	50
4.	Burma	11,860	4,930	11,370	4,920	1,928	2,508	7
5.	India	4,880	3,700	6,500	4,670	2,100	2,126	30
6.	China	3,790	1,730	3,050	1,670	2,034	2,620	6
7.	Pakistan	—	2,910	9,910	5,870	1,747	2,180	28
8.	Sri Lanka	5,800	7,460	3,210	1,260	2,155	2,485	25
9.	Afghanistan	15,770	—	24,430	—	2,203	2,179	20
10.	Viet Nam	—	4,110	—	1,260	2,031	2,281	25
	Middle-income economies							
	Lower middle-income							
11.	Indonesia	31,740	12,330	9,500	2,300*	1,792	2,476	14
12.	Philippines	—	6,850	1,130	2,640	1,936	2,260	15
13.	Thailand	7,230	6,870	5,020	2,140	2,200	2,399	12
	Upper middle-income							
14.	Malaysia	6,220	3,910	1,320	1,390	2,249	2,601	10

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	Upper middle-income						
14.	Malaysia	6,220	3,910	1,320	1,390	2,249	2,601	10
15.	Korea, Rep. of	2,700	1,390	2,990	350	2,255	2,806	9
16.	Hong Kong	2,460	1,290	1,220	790	2,502	2,692	8
17.	Singapore	1,900	1,100	600	340	2,214	2,696	8
18.	Iran, Islamic Rep.	3,800	2,900	4,170	1,160	2,140	3,115	4
19.	Iraq	5,000	1,810	2,910	2,250	2,138	2,891	15
	High-income oil exporters							
20.	Saudi Arabia	9,400	1,800	6,060	730	1,866	3,057	6
21.	Kuwait	800	700	270	180	2,963	3,102	7
22.	United Arab Emirates	—	720	—	390	2,672	3,652	7
	Industrial market economies							
23.	Japan	970	740	410	210	2,669	2,695	5

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TABLE 23
EDUCATION

Sl. No.	Countries	Percentage of age group enrolled in education													
		Primary						Secondary						Tertiary	
		Total		Male		Female		Total		Male		Female		Total	
		1965	1985	1965	1985	1965	1985	1965	1985	1965	1985	1965	1985	1965	1985
	Low-income economies														
1.	Bhutan	7	25	13	32	1	18	0	4	0	6	—	1	—	0
2.	Nepal	20	79	36	104*	4	47*	5	25*	9	35*	2	11*	1	5*
3.	Bangladesh	49	60	67	70	31	50	13	18	23	26	3	10	1	5
4.	Burma	71	102*	76	—	65	—	15	24*	20	—	11	—	1	—
5.	India	74	92*	89	107*	57	76*	27	35*	41	45*	13	24*	5	—
6.	China	89*	124	—	132	—	114	24*	39	—	45	—	32	0	2
7.	Pakistan	40	47*	59	61*	20	32*	12	17*	18	24*	5	9*	2	5
8.	Sri Lanka	93	103	98	105	86	102	35	63	34	60	35	67	2	5
9.	Afghanistan	16	—	26	—	5	—	2	—	4	—	1	—	0	—
10.	Viet Nam	—	100	—	107	—	94	—	43	—	44	—	41	—	—
	Middle-income economies														
	Lower middle-income														
11.	Indonesia	72	118*	79	121*	65	116*	12	39*	18	45*	7	34*	1	7*
12.	Philippines	113	106	115	105	111	106	41	65	42	63	40	66	19	38
13.	Thailand	78	97	82	—	74	—	14	30	16	—	11	—	2	20
	Upper middle-income														
14.	Malaysia	90	99	96	100	84	99	28	53	34	52	12	53	2	6

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14. Malaysia	90	99	96	100	84	99	28	53	34	52	12	53	2	6	
15. Korea, Rep. of	101	96	103	96	99	96	35	94	44	97	25	91	6	32	
16. Hong Kong	103	105*	106	106*	99	104*	29	69*	32	66*	25	72*	5	13*	
17. Singapore	105	115*	110	118*	100	113*	45	71*	49	70*	41	73*	10	12*	
18. Iran, Islamic Rep.	63	112	85	122	40	101	18	46	24	54	11	37	2	5	
19. Iraq	74	100	102	108	45	92	28	55	42	69*	14	39*	4	10*	
High-income exporters															
20. Saudi Arabia	24	69	36	77	11	61	4	42	7	51	1	33	1	11*	
21. Kuwait	116	101	129	102	103	99	52	83	59	85	43	80	—	16	
22. United Arab Emirates	—	99	—	99	—	99	—	58	—	53	—	65	0	8	
Industrial market economies															
23. Japan	100	102	100	101	100	102	82	96	82	95	81	97	13	30*	

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TABLE 24
LABOUR FORCE

Sl. No.	Countries	Percentage of population of working age (15–64 years)		Precentage of labour force in						Average annual growth of labour force (per cent)		
				Agriculture		Industry		Services				
		1965	1985	1965	1980	1965	1980	1965	1980	1965–80	1980–85	1985–2000
Low-income economies												
1.	Bhutan	55	55	95	92	2	3	4	5	1.8	1.9	1.9
2.	Nepal	56	54	94	93	2	1	4	7	1.6	2.3	2.3
3.	Bangladesh	51	53	84	75	5	6	11	19	1.9	2.8	3.0
4.	Burma	57	54	64	53	14	19	23	28	2.2	1.9	1.8
5.	India	54	56	73	70	12	13	15	17	1.7	2.0	1.8
6.	China	55	65	81	74	8	14	11	12	2.4	2.5	1.4
7.	Pakistan	50	53	60	55	18	16	22	30	2.6	3.2	2.8
8.	Sri Lanka	54	62	56	53	14	14	30	33	2.2	1.6	1.6
9.	Afghanistan	55	—	69	—	11	—	20	—	1.7	—	—
10.	Viet Nam	—	55	79	68	6	12	15	21	1.8	—	—
Middle-income economies												
	Lower middle-income											
11.	Indonesia	53	56	71	57	9	13	21	30	2.1	2.4	2.2
12.	Philippines	52	56	58	52	16	16	26	33	2.5	2.5	2.4
13.	Thailand	51	59	82	71	5	10	13	19	2.8	2.5	1.7
	Upper middle-income											
14.	Malaysia	50	59	59	42	13	19	29	39	3.4	2.9	2.6

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14. Malaysia	50	59	59	42	13	19	29	39	3.4	2.9	2.6
15. Korea, Rep. of	53	64	55	36	15	27	30	37	2.8	2.7	1.9
16. Hong Kong	56	68	6	2	53	51	41	47	3.9	2.5	1.4
17. Singapore	53	67	6	2	27	38	68	61	4.2	1.9	0.8
18. Iran, Islamic Rep.	50	53	49	36	26	33	25	31	3.2	3.3	3.2
19. Iraq	51	50	50	30	20	22	30	48	3.6	3.7	4.0
High-income oil exporters											
20. Saudi Arabia	53	54	68	48	11	14	21	37	4.9	4.4	3.5
21. Kuwait	60	58	2	2	34	32	64	67	6.9	6.2	3.5
22. United Arab Emirates	—	67	21	5	32	38	47	57	—	5.2	2.1
Industrial market economies											
23. Japan	67	68	26	11	32	34	42	55	1.0	0.9	0.5

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TABLE 25
URBANISATION

Sl. No.	Countries	Urban population: As percentage of total population		Urban population: Average annual growth rate (per cent)		Percentage of urban population: In largest city		Percentage of urban population: In cities of over 500,000 persons		Number of cities of over 500,000 persons	
		1965	1985	1965–80	1980–85	1960	1980	1960	1980	1960	1980
	Low-income economies										
1.	Bhutan	3	4	3.7	5.2	—	—	0	0	0	0
2.	Nepal	4	7	5.1	5.6	41	27	0	0	0	0
3.	Bangladesh	6	18	8.0	7.9	20	30	20	51	1	3
4.	Burma	21	24	2.8	2.8	23	23	23	23	1	2
5.	India	19	25	3.6	3.9	7	6	26	39	11	36
6.	China	18	22	2.6	3.3	6	6	42	45	38	78
7.	Pakistan	24	29	4.3	4.8	20	21	33	51	2	7
8.	Sri Lanka	20	21	2.3	8.4	28	16	0	16	0	1
9.	Afghanistan	9	—	6.0	—	33	17	0	17	0	1
10.	Viet Nam	—	20	—	3.4	—	21	—	50	—	4
	Middle-income economies										
	Lower middle-income										
11.	Indonesia	16	25	4.7	2.3	20	23	34	50	3	9
12.	Philippines	32	39	4.0	3.2	27	30	27	34	1	2
13.	Thailand	13	18	4.6	3.2	65	69	65	69	1	1
	Upper middle-income										
14.	Malaysia	26	38	4.5	4.0	19	27	0	27	0	1
15.	Korea, Rep. of	32	64	5.7	2.5	35	41	61	77		

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14. Malaysia	26	38	4.5	4.0	19	27	0	27	0	1	
15. Korea, Rep. of	32	64	5.7	2.5	35	41	61	77	3	7	
16. Hong Kong	89	93	2.3	1.3	100	100	100	100	1	1	
17. Singapore	100	100	1.6	1.2	100	100	100	100	1	1	
18. Iran, Islamic Rep.	37	54	5.5	4.6	26	28	26	47	1	6	
19. Iraq	51	70	5.3	6.3	35	55	35	70	1	3	
High-income oil exporters											
20. Saudi Arabia	39	72	8.5	6.1	15	18	0	33	0	2	
21. Kuwait	78	92	8.2	5.1	75	30	0	0	0	0	
22. United Arab Emirates	56	79	18.9	5.5	—	—	—	—	—	—	
Industrial market economies											
23. Japan	67	76	2.1	1.8	18	22	35	42	5	9	

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STRUCTURAL ADJUSTMENT: A SURVEY OF THE ISSUES AND OPTIONS*

PAUL STREETEN
Boston University

The article raises and attempts to answer questions such as: adjustment for what purpose? to what shocks? of what factors or forces? by whom? who loses and who benefits from adjustment? and adjustment how? It also discusses the question of adjustment when? The distinction between external and internal shocks is rejected as neither helpful for the allocation of blame nor for the justification of raising finance. An analysis of the impact on the poor is sketched out. After a brief discussion of the role of the market and government intervention in adjustment policy and the fallacy of aggregating country policies, there follows a discussion of the double paradox of conditionality: why should a donor impose conditions that are in the best interest of the recipient, and why, instead of paying for getting good advice, is the receipient rewarded with extra money? Ten possible reasons are given. The paper ends with proposals as to how to overcome the conflict between national sovereignty and assuring that donor money is well spent.

I. Introduction

The essence of development is structural adjustment: from country to town, from agriculture to industry, from production for household consumption to production for markets, from largely domestic trade to a higher ratio of foreign trade. While the advanced industrial countries also have to adjust to a changing world and to new technologies, their structures are more stable and less subject to change. In this very general sense, development is synonymous with structural adjustment and a paper on structural adjustment would be a paper on development.

For the purpose of this paper, however, a somewhat narrower definition is chosen. In the pursuit of their development objectives — growth, equity, poverty eradication, selfreliance, environmental protection, cultural values—countries are at times faced with major disruptions to which they have to adjust. Adjustment is then adaptation to sudden or large, often unexpected changes. These changes may be favorable or unfavorable to the set of objectives pursued by a government. In the case of a favorable change (e.g., unexpected improvement in the terms of trade, additional foreign capital available for investment or greater benefits from the

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international division of labor), the challenge is to derive the maximum benefits from it; in the case of an unfavorable change, to adapt with the minimum social costs, that is to say, the lowest sacrifice of the objectives and the minimum undesirable side-effects.

The adaptation to unfavorable change may be forced upon a country, "too little and too late," and therefore its social costs may be very high; or it may be anticipated and prepared for, and therefore its costs minimized. Even when the change is not anticipated, there are methods that provide for adaptability and flexibility, thereby reducing, usually at a cost, the cost of adjustment.

Change may be small and slow or large and sudden. For slow and gradual change, the price mechanism is one of the best instruments of adaptation. It combines a decentralized system of signals and incentives, to buyers and sellers, for the allocation and redeployment of resources in response to changes in demand and supply, and it avoids some of the drawbacks of bureaucratic controls, such as ignorance, inefficiency and corruption. If with Alfred Marshall, we think that nature does not make jumps, we shall rely heavily on the price mechanism and the market.

For a large and sudden change, the price mechanism is less suited, at least by itself, and has often to be supplemented or replaced by other non-price measures.

The main issues discussed in this paper are the implications for structural adjustment in an economy that is engaged in world trade, world capital flows and other relations with the outside world. The structural changes to which such an economy has to adjust may come from outside. Structural changes or shocks originating within the country also have repercussions on the balance of payments and require correcting actions and adjustments.

A special case is adjustment from a set of wrong policies to better policies. This comprises adjustments both for a given set of objectives that had been pursued in a misguided manner and for a set of different objectives, more in line with a reformed social welfare function. We shall call these the problems of transition.

The balance of payments of a developing country both reflects attempts of domestic adjusments and imposes the need for domestic adjustments to changes in the rest of the world. Thus, a changeover to an export-oriented strategy, an attempt to grow more food at home, a land reform, a tax reform or a redistribution of income, may lead to a temporary balance of payments deficit. On the other hand, the rise in the price of an important import, global inflation, a fall in demand for a country's exports, or policy changes in foreign countries may also cause a deficit, to which the developing country must adjust. It is now generally agreed that the use of exchange rates to equilibrate payments at each moment

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("clean floating") is not acceptable and would inflict unecessary damage, even if effective. Large speculative capital movements can lead to "overshooting" and be counterprodctive to the adjustment process. But the exchange rate, often in conjunction with other measures, more fully discussed latter, is a powerful instrument to bring about more long-term changes.

2. Adjustments for What?

The first and most fundamental question to ask is: adjustment for what purpose? Any adjustment must have some end in view. Sometimes constraints are considered as if they were objectives of policy, and, of course, they can take the form of intermediate objectives. Thus the elimination of a deficit in the balance of payments or in the budget or in public enterprises, though a constraint, can become an overriding short-tern objective. Or we may wish to adjust from a strategy of import substitution to one of export orientation, or to growing debt service, or to more food production. Or we may wish to correct other distortions in order to improve the allocation of resources. Or we may wish to reduce high rates of inflation. These are, at best, intermediate objectives.

Among the objectives of structural adjustment are usually cited (1) the reduction or elimination of a balance of payments deficit, (2) the resumption of higher rates of economic growth, and (3) the achievement of structural changes that would prevent future payments and stabilization problems. One of the most important purposes of structural adjustment is to make the economy less vulnerable to future shocks. This can be done by increasing flexibility and adaptability. The success of a structural adjustment program depends largely on the absence of rigidities. But it may also be its aim to reduce such rigidities. Unless they can be removed, structural adjustment can be very costly, or altogether out of reach. Growing flexibility is therefore both a condition for and an objective of adjustment policy.

Flexibility can be applied to the market for products or for factors of production. If it is confined to products, but factors remain inflexible, large rents will arise which have no economic function.

There are more fundamental objectives, such as the elimination of hunger and malnutrition or the alleviation of poverty, or cultural autonomy or self-reliance or greater national strength and military power. Some would say that accelerating economic growth is also such a fundamental objective, although growth is simply the time dimension of other goals of policy such as consumption, or poverty alleviation, or reduced inequality, or more employment. Whatever the technical intricacies of the adjustment process, it is useful to bear its purposes in mind, if only because some of these objectives may conflict with one another.

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3. Adjustment to What?

The next question to be asked is adjustment *to what*? Adjustments may be to an unexpectedly favorable turn of events, or, more normally, to an unfavourable turn of events. Adjustments to a favourable turn may be to an exceptionally good harvest, to an improvement in the terms of trade, to a rise in export prices, such as that experienced by oil-exporting countries in the 1970s or in response to a rise in the price of coffee of the Ivory Coast or Colombia, to unexpected inflows of financial resources, or to a sharp drop in the price of oil for oil-importing countries, such as that in 1986. Inability to adjust to such favourable turns can lead to opportunity losses and can be almost as important as inability to adjust to unfavourable turns of events.

The large literature on the "Dutch disease" that arose from the bonanza of natural gas discoveries in Holland testifies to the fact that a large rise in the supply of foreign exchange can be, at best, a mixed blessing, and, at worst, a curse. The exchange rate appreciates, exports of other goods and services than the one the price of which has risen, decline, competitive imports flood into the country, domestic employment declines while inflation rises as the demand for non-tradables increases. Income distribution may become more unequal and the poor may be particularly hard hit. The removal of the foreign exchange and savings constraints can bring to the fore other obstacles. Adjustment policies should then be devoted to their identification and removal. Among these will be promotion of exports other than the commodity whose price has risen, some control of imports, both possibly through a dual exchange rate, sterilization of some of the inflowing foreign exchange, control of domestic inflation, and creation of alternative productive assets. Even a favourable turns of events can cause serious adjustment problems. One is reminded of Bernard Shaw: "There are two tragedies in life; one is not to get your heart's desire; the other is to get it."

Much more common, unfortunately, is the need to adjust to an unfavourable turn of events. Adjustments may be in response to shocks that are expected to last a long time, or a short time, or they may have their origins in macroeconomic or in microeconomic factors.

A widely accepted distinction is that between the need to adjust to shocks caused by external factors, or exogenous shocks, such as a drastic deterioration of the international terms of trade, a reduction in the demand for export volumes, resulting, for example, from a world recession, or a rise in interest rates for countries with large debts, and those caused by domestic events or policies, or endogenous shocks, such as an excessively lax fiscal and monetary policy, price distortions, losses on the part of public enterprises, excessive protection, excess foreign borrowing

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or domestic up-heavals, including revolutions. On the face of it, the distinction is clear enough. Foreign reductions in demand, due to a new technology, to a change in tastes, to rising competitors, or to a recession abroad, or a sudden and large rise in the prices of essential imports, are very different phenomena from domestic harvest failures, strikes, corrupt policies, mismanagement or political change. Yet, on closer inspection, the distinction becomes blurred. If prices of a country's exports drop and its terms of trade deteriorate, it is a matter of good policy to have foreseen this event or at least its possibility, and to be ready to move out of the declining export trade into more profitable lines. Thailand, Malaysia and the Philippines diversified their crops and raised productivity in existing crops in response to declining price prospects (for example rubber in Malaysia), while other countries failed to do this (for example Tanzania for sisal).

Alertness to expected future changing comparative advantage and new opportunities in technology and demand, flexibility and mobility in response to unexpected changes are domestic responses to international influences. To get stuck in declining export lines can be, at least partly, attributed to a failure of domestic policy. In this case, deteriorating terms of trade, apparently due to external forces, must be attributed to deficiencies in domestic policy. The distinction between exogenous and endogenous causes gives no clue to the source of the fault and the allocation of blame. Events originating in the domestic economy may be just as much beyond policy control as some outside events. A failure of the domestic harvest, a flood, a hurricane or an earthquake cannot be attributed to domestic mismanagement, though provision for such emergencies, just as provision against shocks from abroad, such as ample foreign exchange reserves, or inventories, or spare capacity, is prudent. The exogenous/endogenous distinction is sometimes taken as a basis for the justification of international assistance. External shocks, beyond the control of the country, should entitle a country to foreign aid, but not internal causes. But some events entirely within the domestic economy are beyond the control of policymakers, such as a prolonged drought whereas some external causes could and perhaps should have been anticipated and planned for. The external-internal distinction is not a useful guide for allocating fault or blame or entitlements or foreign assistance.

In addition, the use of the words "exogenous" and "endogenous" can be misleading: Though they are applied in this context as meaning originating outside or inside the country in question, they normally mean in economic analysis originating outside or inside the variables of an analytical model. And this model could comprise external variables as parts of its interdependent system, in which case they would be endogenous, and domestic determinants could be assumed to be outside its system, and

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they would then be exogenous.

Even if the distinction between external and internal origins were helpful in allocating blame or fault, unless more external assistance were in fact forthcoming in one case than in the other, it would not be helpful in determining what measures to adopt. For even faults that lie entirely outside the country have to be adjusted to, just the same as if they originated in the country.

Some of the major changes arising mainly from the world economy to which adjustments by the developing countries are called for are these:

(1) growing debt service, combined with fewer loans and higher interest rates;

(2) deteriorating terms of trade, whether resulting from rises in import prices, such as that of oil, or drops in export prices, such as that of major export crops;

(3) high levels of inflation in the world;

(4) slower growth in the OECD countries;

(5) technical innovations such as those in electronics that change the location of industries. In addition, there are

(6) continuing high rates of population growth;

(7) urbanization;

(8) scarcities of land and certain raw materials;

(9) scarcities of foodgrains;

(10) policies adopted by the developed countries: protection of industry, agriculture and services;

(11) environmental pollution;

(12) international migration;

(13) natural disasters, such as prolonged droughts;

(14) man-made disasters, such as the arms race or wars.

Adjustment may be to disturbances caused by domestic policies or by the policies of other countries. With regard to domestic policies a good deal of attention has recently been paid to the losses of public enterprises. One of the most common sources of budget deficits in many developing countries is the pricing policy of state-owned enterprises. There are clearly some cases where losses of public enterprises which benefit a Particular vulnerable group, or which achieve a social objective, are part of the reason for their existence.

In some cases, keeping the prices of the products and services supplied by public enterprises low helps to combat cost-push inflation. Policy-makers have to weigh the demand-inflationary impact of budget deficits to finance public enterprise losses against the cost-inflationary impact of permitting their prices, and with them money wages, to rise.

Public enterprises should also be judged by their ability to contribute, directly and indirectly, to foreign exchange earnings or savings, to the

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introduction of appropriate technologies, and to the protection of the natural environment. But, in fact, the losses of many of these enterprises far exceed the costs of achieving these social objectives, and in many instances do not achieve them at all. Far from subsidizing poor consumers, they subsidize fairly well off consumers and large private enterprises. The losses can be understood mainly in terms of political pressures. Structural adjustment loans by the World Bank can help to exercise counter-pressures for a more rational policy of these enterprises. At the same time, it should be borne in mind that public enterprises serve other purposes than private ones.

A particular type of adjustment, often very difficult, is that to the policies of the advanced industrial countries. It is of the essence of interdependence that single nation states are, by unilateral action, capable of inflicting considerable harm on other countries. The main danger here arises from beggar-my-neighbor protectionist policies. Disguised as regional or industrial policies, even policies that go under the name of "adjustment *assistance*" often can amount to adjustment *resistance*. Such measures affect most directly the newly industrializing countries (NICs), in search of markets for their growing manufactured exports. But the low-income countries, also, can be harmed by them. The fear that barriers will go up can be an important deterrent to investment in export industries, and this causes the false impression that supply constraints are at work.

Exchange rate flexibility on the part of developed countries has trade-reducing effects on developing countries, and if the latter peg their rates to one major trading country, trade-diverting effects from the rest of the world. Both represent costs for countries attempting to raise and diversify their trade.

A difficult problem is presented to the developing countries by the impact of the US mix of monetary and fiscal policies on other industrial countries. The recent combination of loose fiscal and tight monetary policy combines the burden of high interest rates with depressed demand for exports from developing countries, as other developed countries have to put up their interest rates to avoid excessive capital outflows. What is needed is a higher degree of North-North coordination in government policies, as well as North-South and South-South cooperation. The best scenario would be a continuing US expansion while the US budget deficit is brought under control. US interest rates would drop, easing the debt burden. Europe and Japan would expand with easier monetary policies, and demand for the exports of the developing countries would grow. A higher degree of North-North cooperation and coordination of policies would be a great help to the developing countries. Structural adjustment for the advanced countries, like charity, begins at home.

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So far we have discussed adjustments as mainly responses to shocks, whether external or internal. But adjustments may be required as a result of more active initiatives for a change in strategy. A government may wish to change from import-substituting industrialization to export-orientation, or from excessive urban bias to more agricultural production both for home consumption and export, or from a conventional concentrated growth strategy to a more egalitarian one, or to institute a land reform, or a tax reform, or to make poverty eradication one of its principal targets. The adjustment problems that such transitions create are therefore often inadequately treated and sometimes misunderstood. These will include sectoral imbalances in supply and demand, manifesting themselves in unemployment combined with inflation, and disturbances in the balance of payments, and will raise the time period for financing adjustments. As income is redistributed to the poor, the supply of food will be inelastic in the short run and prices will rise or more imports will burden the balance of payments. As expenditure on luxury goods is reduced, unemployment in these trades may rise. Owners of capital will try to move their capital abroad. If the reformist government replaces a repressive dictatorship, previously oppressed groups will assert their claims to higher incomes with inflationary results. There may be strikes and even coups d'etat. Some of these adjustment problems are mistaken for manifestations of mismanagement, which, of course, especially for inexperienced reformist governments, may independently add to their difficulties.

Economists have been better in analyzing comparative statics and comparative dynamics, than the transition path from one type of strategy to another. We completely lack a handbook for reform-minded Prime Ministers and Presidents, who would like to know how to manage the transition to a better society. The international community, in turn, should be ready to assist such reform-minded leaders with Radical (or Reformist) Adjustment Loans (RALs) to ease the transition, to help overcome the dislocations, to provide more flexibility and elbow room. When President Duarte in El Salvador undertook a land reform in 1980–82, he was promised US aid to compensate landowners. But Senator Jesse Helms introduced legislation preventing this. In addition, the prices of the country's commodity exports fell, and the reformer found himself in disgrace.

4. Adjustment of What?

Next there is the question: adjustment *of what*? In developed countries adjustment sometimes means the revival, with new technology, of old industries, like phoenix rising from the ashes, and at other times it means the creation of new industries, at the frontiers of technological knowledge. The textile industry is an example of either. The question then is often posed whether labor should move to the industries or capital and entre-

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preneurs to the labour. Developing countries have a much smaller industrial base and the question is normally a different one. Should there be adjustment of *policies*, particularly pricing policies, say from protection to freer trade or from keeping food prices down to raising them to the level of world prices, or should there be adjustment of *institutions*? These may refer to a land reform or to population control or to the administrative system or to education and training.

A vast amount of writing and exhortation has recently been devoted to advocating higher agricultural prices where they are below border prices. This, it is said, would stimulate agricultural production—both export crops and food for domestic consumption—and help poor rural people at the expense of the urban middle class.

When it is pointed out that, quite apart from the fact that there are many poor buyers of food, both in towns and in the country, who should be protected from hunger and starvation caused by higher food prices, other measures besides higher prices are needed only to get a substantial supply response, the advocates of higher prices would agree. Yes, they would say, we need roads to get the produce to the market, technology to apply to agricultural production, irrigation, credit, efficient marketing, etc. But the proposition "other things are also necessary" is open to two diametrically opposed interpretations. It may mean that other things help, but to "get prices right" by itself is better than nothing: it is a step in the right direction. Or, alternatively, it may mean that only if price policies are combined with non-price measures do we get a supply response. Price measures by themselves can be either quite ineffective, or actually counterproductive, even if we have only total production in mind, and pay no attention to poverty or income distribution.

Let us first briefly look at the "other things" and then illustrate the futility, in some situations, of applying only price measures. It so happens that the six prongs which are necessary to achieve an agricultural supply response each begin with "In," so that we can call them the six "Ins." Prices are the first In, because they serve as Incentives. Second, we need Inputs: water, fertilizer, equipment. Third, we need Innovation: technology, such as high yielding varieties, irrigation, etc. Fourth, we need Information: the technological knowledge must be diffused through extension services. Fifth, we need Infrastructure. Unless there are roads and harbors to get the crops to the market, even the best incentives will not get production and sales up. And sixth, we need Institutions: credit institutions, efficient marketing institutions that do not cream off too high a margin from the final price, and in some cases, land reform. Also adequate health and education services for farmers. These are the six Instruments that provide a mnemotechnic framework for agricultural policy. Many of these, particularly infrastructure and innovation, are normally

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carried out in the public sector.

There are some pricist fanatics who say that the correct prices will by themselves induce the right innovation and even the correct action by the government in the public sector. There are others, who say that the Ins other than Incentives are already in place in many developing countries. If these two groups of people were right, no independent public sector action would need to be taken. Unfortunately, it is obvious that this is often not the case. In Tanzania, roads are so inadequate that even if farmers produced more in response to higher prices, the crops could not be transported: a failure of Infrastructure. Or the marketing boards would appropriate the gains, leaving nothing to the farmers, a failure of Institutions.

In addition, complex and difficult choices arise within each of the six Ins. Consider infrastructure, normally provided at least partly at public expense. There are choices between physical, legal, human, social and producer-specific types of infrastructure to be made, choices between centralized and decentralized types of infrastructure; choices between infrastructure for producers and for consumers, choices between maintenance of existing projects and new projects, and choices between different methods of financing infrastructure. The same is true for institutions and for information. (For example, should extension workers concentrate on a single line of conveying information or should they combine several?) All these compete for scarce resources with directly productive investment in agriculture.

Now let us illustrate how higher agricultural prices without action on the other five fronts can be ineffective or counterproductive. The illusion that higher prices by themselves will lead to a large response in supply derives from an illegitimate application of what happens if the price of one crop rises relatively to other, to the case where the agricultural terms of trade as a whole improve. All the evidence shows that supply response is much lower for total output.

Moreover, raising agricultural prices may not be capable of improving the terms of trade. In the effort to raise producer prices as an incentive to agricultural production, the benefits can be undone if the higher prices are communicated to the rest of the economy through proportionately higher money wages and higher markups on industrial goods. If this were to happen, the attempt to raise agricultural prices would only set off an inflationary movement, would not have improved agricultural industrial terms of trade, would not have achieved its objective of raising agricultural production, and would have undesirable side effects.

The second example is from Bangladesh. There, a large proportion of the rural population are tiny farmers who produce some food for themselves on their little plots of land, but not enough so that they have to

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work for bigger landlords and buy food with their wages. When the price of food rises, these deficit farmers pledge their little plots against consumption loans. When they cannot repay the loans, they forfeit their land. We are not here concerned with the fact that these people may be driven to starvation, but only with the effect on output. Since the output per acre on large farms tends to be lower than on small farms, the transfer, caused by the initial rise in food prices, will lower total agricultural production.

A third example is inspired by Tanzania-Assume there is a scarcity of consumer goods in the villages, their prices are controlled and there is no black market. As agricultural prices are raised, the farmers can buy the limited amount of consumer goods at controlled prices for a smaller supply. If we also assume that they are not interested in storing money for the future, they will produce and sell less. Their elasticity of supply becomes minus one. As supply prices rise, they reduce supply proportionately, because they need only a given total of receipts to buy the rationed and price-controlled goods. Let us further assume that foreign exchange earnings are derived from agricultural crops and are spent on imports of consumer goods. And let us assume, not unrealistically, that a certain absolute amount of these imported consumer goods are reserved for the urban population. The reduced agricultural supply will mean reduced imports. Since a larger proportion of these are preempted for the towns, the farmers will get even less. Their supply will further shrink and we shall witness a contractionist spiral, fewer consumer goods leading to less agricultural supply, leading to fewer consumer goods for farmers, etc.[1]

The conclusion is that correct pricing policies often (elearly not always) work best in conjunction with action in the public sector.

Since adjustment means normally reducing expenditure somewhere, a prime candidate for this is military and defense expenditure. How many village pharmacies could we have for one tank? Many men and women of good will see in the large and rising military expenditure a source that should be tapped for better purposes. But the presentation of more attractive alternatives has no impact on the military establishment. It is reminiscent of the story of the boy who comes home and proudly tells his father that he saved 50 cents by walking home, and not taking a bus. The father replies: "But had you not taken a taxi, you would have saved 10 dollars." Taking a taxi, like the village pharmacies, is the irrelevant alternative. There is historical evidence that military expenditure and foreign aid, or military expenditure in wartime and improved domestic levels of nutrition, are positively, not negatively, correlated. If we wish to make an impact on the military establishment we shall have to convince it that growing defense expenditure can be counter-productive in terms of its own objective, viz. security. It is probably the only area in which the

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Laffer curve applies. Beyond a certain point, more defense expenditure reduces rather than increases national security. If this point can be established, and we can show that we have transgressed it, for multilateral and for unilateral disarmament, the resources would be freed for social and other adjustment objectives.

Other candidates for expenditure cuts are various headings in the budget deficit and the losses of public enterprises. As we have seen, these losses constitute a major element in the budget deficits of many developing countries. The purported social purposes of many public enterprises appear to legitimate their losses, but two questions arise. First, are these social purposes actually achieved, or are the public subsidies to these enterprises not in fact counterproductive in terms of the claimed objectives? Second, even where the social purposes are achieved, can this not be done at lower costs, more efficiently, and therefore with smaller losses, or possibly with surpluses? One way of testing this is to calculate the precise amount of the cost of any "social objective," to hand this amount of of subsidy to the enterprise, and to ask it then to cover its total costs.

5. Adjustment by whom? Who benefits and who loses?

When we consider the question of adjustment *by whom*, the candidates are labor or capitalists, the rich or the poor, men or women and children. UNICEF has recently started to think about, and to urge upon the IMF, what they call "adjustment with a human face." How can we bring about the required adjustment with the minimum harm to the most vulnerable groups? Some cuts in expenditure are required. Much investment is productive investment and we do not want to cut this, for it would undermine long-term growth. In low-income eountries the rich are few and some consumption cuts are bound to fall on the poor. But it will be possible to cushion the poorest and most vulnerable groups, such as children and women, against having to suffer cuts in their consumption. In wartime Britain. adjustment to the war economy has led to improved standards for children and mothers, by programs of rationing, free issues of certain products such as orange juice, and redistribution of real income.

In considering the impact of adjustment policies on the poor, three things should be clear to start with. First, any form of macroeconomic adjustment is bound to affect the distribution of incomes, if only because its purpose is to raise incomes in some sectors and reduce them in others. It can therefore not be excluded from any full analysis of the effects of adjustment policies. Second, what should be of main concern is the impact of adjustment on the poor, not on relative income distribution. If some groups benefit without anybody being hurt, this should be no cause for complaint, although in fact conflict over the division of benefits can be as serious as conflicts over gains and losses. Third, any cut in living

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standards, imposed by the need to correct a balance of payments deficit, is bound to hit some of the poorer sections (though not necessarily the poorest of those groups, the meeting of whose needs contributes to human capital formation), if only because the poor are so numerous and average income is so low in low-income countries. This is particularly so if productive investment that contributes to economic growth and to safe guarding living standards in the future is to be protected. These reductions in living standards of the poor are likely to be more serious in countries with low average incomes per head, partly because incomes are already low, and even across the board cuts will drive many below the poverty line, and partly because these countries are liable to be less flexible and responsive to shocks and therefore have to deflate by more for and given correction in the balance of payments.

Some of the austerity in the much bewailed austerity programs is therefore inevitable. In particular, employed wage earners in the organized sector, including those in public enterprizes, not normally among the poorer, may have to suffer. The question is whether stabilization policies inflict an undue share of the burden upon the poor, for instance by a sudden elimination of food subsidies, or by cuts in social services, or by price increases of essentials.

A study by Norman Hicks and Anne Kubisch suggests that for the period of the 1970s and early 1980s, on the averge, social expenditures were less vulnerable than other types of government expenditure, when total expenditure was reduced. Vulnerabiiity is defined as a percentage reduction higher than the average, It could, of course, be argued that when cuts are made in other sectors, raising unemployment, social expenditure should be increased. And indeed, some countries such as Brazil, Indonesia and the Philippines, increased social sector expenditure despite total cutbacks. On the other hand, other countries, such as Turkey, Guyana and Sudan reduced social expenditure by more than the average. But the authors conclude "the empirical evidence suggests that when governments in developing countries implement austerity programs, they do not apply across-the-board reductions in expenditure. Generally, capital expenditures are reduced more than recurrent expenditures. Within both capital and current budgets, the social and administration/defense sectors appear to be relatively well protected, while infrastructure and production absorb disproportionately larger reduction."[2] But it should be noted that social expenditure only catches a part of the impact on the poor. For example, cuts in food subsidies are counted as reductions in the productive sector. The question as to whether austerity programs inflict an undue burden on the poor has to be answered with a view of the alternative. Any appraisal of stabilization policies must compare them with a specified, hypothetical alternative situation, not with the situation when the deficit permitted

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living above the country's means. Comparisons with past performance are therefore irrelevant. But the counterfactual for comparison can be either the probable situation without International Monetary Fund assistance, or Fund assistance with different conditionality packages. While devaluation and monetary fiscal restriction will hit the poor, had inflation continued at the old level, and no adjustment occurred, higher prices of food and other necessities would also have harmed the poor. They have no assets whose value goes up with inflation, and their money incomes tend to lag behind price increases, especially of the goods mainly consumed by them, such as food. And if the corrections had then to be brought about by the imposition of import restrictions or violent deflation, the poor would suffer most. It should be expected that in a regime in which income, wealth and power are unequally distributed, the poor suffer, whatever policies are pursued. On the other hand, in countries where the poor have political power, such as the Malays in Malaysia, stabilization programs in the 1970s have protected them against damage, through food subsidies, exemption from credit restrictions, and other measures.

Inflation is sometimes called "the cruellest tax" on the poor, and it is therefore not self-evident that the contraction imposed by the Fund hits them more than continuing inflation would. As far as the United States is concerned, Alan S. Blinder and Rebecca M. Blank (1986) have shown that the poor suffer more under unemployment and recession than they do under inflation, and that it is unemployment that is the "cruellest tax." These results cannot be immediately transfered to the developing countries, but a similar approach could be used there.

It is not inevitable that stabilization policies should hit the poor exclusively. Adjustment normally consists of two parts: expenditure-reduction and expenditure-switching. Expenditure-reduction, in a low-income country, will tend to hit the poor sections, unless they are specially protected or compensated, but expenditure-switching need not harm them. The reallocation from domestic sectors to tradables will tend to raise incomes in these sectors. If traded goods are mainly agricultural goods and if many poor are engaged in agriculture, they may benefit from the reallocation. (On the other hand, some non-tradables, such as construction and government services, are labor-intensive, and a switch to the production of tradables may reduce employment and income of the poor.) Analysis of the impact of balance of payments adjustments on income distribution and poverty is sometimes conducted in terms of a two-sector neoclassical model, in which tradables have different factor proportions from non-tradables. A switch to tradables then benefits the owners of the factor of production that is used more intensively in the production of tradables, not only in the tradables sector but in both sectors. It also benefits the consumers of non-tradables because their relative prices fall. But the diffi-

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culty with this type of analysis is that incomes of people do not always follow the functional lines of capital and labor, and the two sector model is of limited use. Within each sector there may be, for example, an informal, labor-intensive sub-sector, in which producers own a bit of capital but operate on a small scale, and a formal, capital-intensive, large-scale sub-sector, with wage employment. As expenditure is switched to the tradables sector, workers in the formal sector may benefit but the informal sub-sector poor may be harmed. If there is substantial mobility between the subsectors, this would not matter, for people would move from the informal into the formal sector. But if mobility is limited, the distinction is crucial. It has already been argued that more important than the impact of stabilization policies on income distribution is the impact on absolute poverty.

The higher prices of imports of necessities caused by the devaluation could be offset by subsidies, targeted towards the poor. The restrictions on investment could be on luxury housing and durable consumer goods for the upper class. In fact, however, many stabilization policies have hit the post hard. The price rises that follow devaluation and the removal of controls frequently affect particularly the necessities consumed by the poor. Reductions in government expenditures are often on labor-intensive public works, food subsidies and social service. High interest rates tend to encourage concentration of wealth if lenders are richer than borrowers (but this is not always so), though lower rates combind with credit rationing favouring the rich often do the same. Monetary and fiscal restrictions raise unemployment and reduce the bargaining power of unskilled labor. In all cases it is the poor who suffer more than they would have suffered in a situation of repressed inflation, where demand for labor is high, the prices of necessities are controlled, and social services are more generous.

Although we do not have a rigorous model by which to assess the impact of adjustment policies on vulnerable groups, including children and women, it is possible to lay down certain guidelines. First, maintain a floor for minimum nutrition, health and education levels, and do not permit cuts in expenditure to affect these. Second, restructure production within the productive sectors—industry, agriculture, services and foreign trade—so that the producers in the small-scale informal sectors are not discriminated against but are made to complement the organized sector (manufacturing components or spare parts, conducting repair, subcontracting, providing ancillary services, etc.); and give them access to credit domestic markets and sources of supply. Third restructure the social services —education, health, water and sanitation—so that the vulnerable groups are not deprived of minimum services. And fourth, provide international support for these types of adjustment, both financial and technical assis-

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tance, and particularly ease debt service conditions, so as to permit the flexibility and adaptability such programs call for.

A difficulty with reducing more broad-based welfare programs to more "targeted" ones is always that savings in government revenue are bought at the expense of excluding some of the poor. "Leakages" can occur at both ends: excess coverage means that some non-poor benefit, but reduced coverage means that some poor do not benefit. The case for erring on the side of excess coverage is that this also raises the taxable capacity of the non-poor, so that at least some of the expenditure can be recovered, say by a tax on tobacco which helps to finance food subsidies.

Special problems of protecting the poor arise for the period of transition from bad to good policies. Consider a government that has kept agricultural prices too low and wishes to raise them so as to encourage production and raise the income of poor sellers of agricultural products. Once supply and employment in agriculture have increased, and new technologies have been introduced, we may assume that most sections will benefit. If supply curves have been lowered, prices may even be lower. But in the interim, some may suffer. Keynes said "in the long run we are all dead. "But this does not mean that in the short run we are all alive. Poor buyers of food may die while the adjustment to a set of reforms takes place. In Bangladesh, higher prices of rice have led to higher child mortality.[3] Policymakers embarking on a course of raising food prices must therefore pay special attention to protecting the poor in the transition.

The high costs, in terms of political constraints—such as riots most recently in Zambia but also in Brazil, Bolivia, Peru, the Dominican Republic, Tunisia and Egypt, among others—and of economic and financial resources, is one of the biggest obstacles to reform.

One solution is to increase prices gradually, in small steps. A second way is to adopt selective subsidies, concentrated on vulneral groups. A third way is to provide income subsidies to the poor. Subsidies can also be combined with rations, so that the poor are guaranteed a minimum of food. Fiscal and administrative constraints set limits to such programs. It is particularly difficult to reach poor food buyers, such as landless labours, in rural areas. Experience has shown, however, that programs of targeted subsidies to vulnerable groups can be quite effective, as long as the number of poor is not too large, say less than 30% of the population. It is rarely possible to cover *all* the poor, and *only* the poor, and we may have to accept some sacrifice in higher total food production in response to high food prices for the sake of better nutritional standards of poor food buyers, safeguarded by lower food prices in the transition.

6. Adjustment—How?

What means are to be employed to bring about the adjustment? It is

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in the nature of adjustment policies that they comprise measures additional to stabilization, such as the reduction of tariffs, trade liberalization, the elimination of controls on wages and prices, the creation of institutions to facilitate export credits, and the improvement in infrastructure, all of which aim at increasing the capacity to export.

The analysis can be conducted in three stages.

1. How severe will be the adjustment problem—the disease—as registered in the balance of payments deficit? (A secondary more important but more difficult calculation would be the costs imposed by alternative corrective measures, such as deflation, devaluation, import restrictions, tariffs, etc.)

2. What range of medicines is available? E.g., exchange rate flexibility increases the number of medicines, while pegging exchange rates reduces the cupboard by one medicine; forswearing increases in tariffs by another. The possibility of retaliation complicates matters.

3. How effective is any given medicine? E.g. with a more slowly growing volume of trade, demand elasticities will be lower and exchange rate adjustments less effective. On the other hand, within a free trade area or common market, elasticities may be expected to be higher.

The task for policy is to combine financing deficits and correcting them in such a way as to minimize reductions in employment, output and growth, and the standard of living of the poor (and any other objectives such as income distribution). Appropriate methods of financing deficits, combined with the right type of conditionality, do not frustrate the process of adjustment, but facilitate it, and can reduce its costs.

7. Adjustment through the market or government intervention?

The virtue of allowing the market to bring about adjustments is that it combines signals and incentives in response to change. Nobody maintains that markets work perfectly, but then nobody maintains that government intervention can always produce the best results. We live in an imperfect world, and it is a matter for skillfull judgement to decide which imperfections—market failures or government failures—are least bad. Governments can, of course, intervene in the free play of market forces by using prices as instruments of policy. Indirect taxes and subsidies can attempt to use prices and market forces for the purposes of government policy,where the free play of market forces otherwise would conflict with social objectives.

Fortunately, there are not only the much discussed market failures and government or bureaucratic failures, but also market successes and government successes. The success strories in structural adjustment show neither the success of laissez-faire, nor of centralized bureautcratic control, but show governments (a) that knew in which areas to intervene and which to leave alone, and (b) how to conduct interventions efficiently.

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The failures illustrate not only excessive government intervention, but also unwise and inefficient intervention in some areas, and inadequate intervention in others.

When adjustment is needed to a change, such as a change in supply or demand for a commodity which has been produced and sold in the past, consequential price changes normally signal the right responses and produce the right incentives. In response to a fall in demand, prices, profits and investment will tend to fall, and labour will leave the activity, or new workers will be discouraged from entering. But some exceptions should be noted.

(1) When workers have to be retrained for new jobs. or have to move to new locations, capital is. needed to finance these adjustments. If capital markets were perfect, workers could borrow and repay loans out of their future higher earnings. But capital markets are not perfect, and there is a role for governments to finance adjustment assistance.

(2) Adjustments may be impeded by lack of knowledge, or by inertia. At a minimum, government may, in such situations, have to provide information, and perhaps again some subsidies to the moves. On the other hand, the information available to the government may not be much better than that available to individual workers, or their reluctance to move may be justified because their subjective costs exceed probable benefits.

(3) If real wages are sticky and do not fall in response to a decline in demand, unemployment will rise. Sometimes such unemployment may bring about the adjustment more effectively than reductions in real wages, particularly if there is excess demand for labor in other sectors, and this is known. But if this does not happen there may again be a case for government intervention.

(4) One of the most common justifications for government intervention is the need to correct an undesirable impact on income distribution. As we have seen, in any adjustment process, some people are likely to gain, others to lose. If the losses of the losers are undesirable, the government will try to step in.

Price policies are not the same as free market policies. Price can be used as an instrument of government intervention, in order to achieve public objectives. Tariffs, indirect taxes and subsidies permit prices to affect the allocation of resources by cutting the links between buyers and sellers that would prevail in their absence. If, in response to an increase in demand, an indirect tax is imposed on a product, this will reduce the demand for the product, and therefore not permit an increase in the supply, unless the revenue is spent on additional supplies. A subsidy can be used to lower the price to consumers, who otherwise could not buy the product. It raises supply, without raising prices to buyers. The limits to

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such policies are set by fiscal constraints. Direct controls do not call for taxes or subsidies, but call on scarce administrative capacity. Both fiscal and administrative constraints are severe limitations in most developing countries, and choices between the two are difficult.

It is sometimes said that if we always pursue efficient policies, such as those indicated by market forces, while there will be occasionally losers, in the long run everyone will be better off. There in therefore no case for government intervention to correct for income distribution. Such intervention is only likely to reduce efficiency. But this defense is untenable. First, there is no reason to believe that the gains would be spread randomly in the long run. Many forces such as increasing returns, higher savings out of higher incomes, etc., work for cumulative gains—"unto those who have shall be given"—and the same group of people can be consistent losers. Second, in the long run the identity of individuals changes, and it is illegitimate to compare the gains of one generation with the losses of another. Even if the compensatory gains were spread over the same generation, the individuals' tastes, wants and needs will change over time and it is then not clear that a future gain is always an adequate compensation for a current loss.

2. Fallacies of Aggregation: the Need for a Global View

One of the criticism of the Fund and the World Bank has been the absence of a global view on adjustment policies. Not all countries can have export surpluses. New gold apart, the surpluses of some must be matched by the deficits of others. Similar problems could arise in structural adjustment. If several countries were to reduce their dependence on a single export crop, the price of which is likely to fall in world markets, by diversifying into crops that are supplied by other countries, but are also in surplus, they would aggravate the deterioration in their terms of trade. Similar problems can arise for manufactured exports, against which protectionist barriers are likely to be raised if the total exceeds what other countries think they can absorb. It has often been said, for example, that the experience of export-led growth of the East Asian countries cannot be repeated by all developing countries because the additional exports would be so large that protectionist barriers would go up or the terms of trade would deteriorate.

In its simplest form, there are several things wrong with this argument. First, in principal, the foreign exchange earned by the exports of the developing countries will be spent on extra imports and, problems of composition (calling for adjustment) aside, need not give rise to protectionism. Second, the phasing of trade liberalization and export-orientation will be different for different countries, and not all exports will be dumped simultaneously. Third, as a result of a better international

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division of labor, incomes will rise in the developing countries and out of these higher incomes more will be spent on the exports from the developed countries, as well as from other developing countries. In the context of accelerated growth, the adjustment problem of switching resources from import-competing to new export industries should be caused. Fourth, the commodity composition and the export/GDP ratios will be different for different liberalizing countries. Many developing countries will continue to export many primary products. The experience of the Gang of Four (Taiwan, South Korea, Singapore, Hong Kong) should not be held up as a model. These four countries are labor-rich, natural resource-poor, while other developing countries, such as Brazil and Argentina, are likely to be more resource-rich and labor-poor, and will therefore export only a smaller proportion of their GDP in the form of labor-intensive manufactured products, thus reducing the risk of swamping the market. According to these and other characteristics, different developing countries will export different goods (as well as at different times). Fifth, some exports would be directed to other Third World countries, in which vested interests clamoring for protection are less than in the developed countries. Sixth, as a result of trade liberalization some counter-protectionist pressure groups in the developed countries are likely to arise or be strengthened, for example agriculture in the United States.

In spite of these arguments there are bound to be adjustment problems in the industrialized countries if all developing countries were to liberalize their trade and adopt more outward looking policies. These will apply with particular severity to some product groups and some countries. A lot depends on what is assumed about growth rates in the late 1980s and 1990s, and how successful industrialized countries' adjustment policies will be. The conclusion of this discussion is that, although adjustment problems in the developed countries in response to an export drive on the part of the developing countries would be serious, and recommendations along these lines suffer from some degree of illegitimate aggregation, they need not be as serious as some observers have anticipated.

9. Conditionality

There is, on the face of it, a double paradox in an international lending agency imposing conditions for loans that are in the interest of the borrowing country. If they are truly in the interest of the receiving country, why are they not pursued by the policymakers? If they can be convinced by their correctness, why do they have to get money? You would expect to pay for good advice, not to be financially rewarded for following it.

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One can think of 10 sets of reasons of unequal validity, some of which are well analyzed in a paper by A. R. Khan.[4] First, the policymakers may be ignorant about the causal relationships and in need of instruction. Second, their causal analysis of the links between levers and results may differ from that of the donor. For example, they may evaluate the impact of a devaluation differently, or may believe that direct controls are more effective. Third, their forecasts of the future state of the world may be different. One group, for example, may forecast a higher price of oil in 10 years, the other a lower. Or the borrower may overestimate the amount of additional foreign resources that would become available, while the lender may cautiously underestimate it. Or the self-confident borrower may overestimate his administrative capacity to implement controls, while the skeptical lender may underestimate it. Fourth, the objectives of the policymakers, open or hidden, may differ from those of the lending institutions, or, fifth, government and lender may give different weights to the same objectives. For example, the government may want to promote the interests of groups on whose support it relies, whereas the lending institution wishes to institute painful reforms for the benefit of less well represented people. Or the government may give more weight to considerations of income distribution, whereas the lender insists on the efficient allocation of resources, even though some vulnerable groups may lose thereby. The function of conditionality then is not to persuade but to exercise leverage. Sixth, the philosophy or the ideology of the two may be different. The country may believe that much power should be given to the public sector, whereas the lender wishes government interventions to be reduced to a minimum. Or the borrower may believe that the lending institution is a tool of imperialist exploitation, while the lender believes that the borrower is the victim of an outdated idelology. Seventh, the risk aversion in adopting policies with uncertain outcomes may be different for the two sides. Eighth, the two sides may have different time discount rates and a different time horizon. For example, the government may be eager to stay in power and be concerned with gains in the short term, while the lender has benefits in the more distant future in mind. Ninth, the policymakers may wish to put the blame for unpleasant and unpopular measures, which they know they have to adopt anyway, on a foreign agency. They wish to find a scapegoat, and foreign lenders are ideal victims for this role. And finally, tenth, the policymakers may share analysis, forecasts and objectives, attitudes to risk and time horizons, but assess the costs of transition to better policies as too high or unaffordable without extra assistance. These costs would cover both political opposition and economic, financial and fiscal resources. This last ground is the most sensible explanation of the double paradox. According to it, foreign funds have the function, not of filling resource

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or foreign exchange gaps, but of adding flexibility of an economy wishing to change course from a set of bad policies to better ones.

The remedy for the first and second is education, dialogue, presentation of the arguments, and humility; for the third more searching analysis. For the fourth, fifth and sixth there are two solutions. Either the donor agency supports those interest groups inside the receiving country that are most in line with their objectives (though this can be counterproductive), or designs ways of compensating, if desirable and feasible, or necessary, the interests that are hurt by the reforms. Or the agency reduces its objectives to the minimum, viz., the achievement of external balance and the creation of conditions that enable the country to repay the loan, while leaving decisions on other objectives, such as inflation, unemployment, income distribution, etc., to the country. Another remedy for disagreements about causal analysis is for the lender to concentrate on *results* (improvements in the current account of the balance of payments) rather than on *means* (devalution, fiscal restraint, credit restrictions). Another remedy still is to signal without conditionality, by supporting "good" countries or potential improvers, but without making this an explicit condition for loans. The message will soon get around. The remedy for the tenth is additional resources provided by the international community that help to add flexibility and reduce the costs of the transition.

If it is agreed that economic policymaking is not a science, and operates in an area of great uncertainty, conditionality imposed by the lender should be replaced by a genuine dialogue between lender and recipient. But even if the correct policies were revealed with absolute certainty to the lender, it is sometimes counterproductive to impose them from without, because such imposition can be used to mobilize the opposing forces inside the country. In some conditions, conditionality can be used to support and strengthen the forces inside the country making for desirable reforms and weaken the vested interests opposing it. But in others, such conditionality can be the kiss of death and damn the reforming groups as lackeys of foreign capital and weaken their position.

There is another difficulty of policy conditionality: policies, like resources, are fungible, and resistant governments can yield to one type of policy while pursuing their objectives by some other policy. It would be excessively cumbersome and time-consuming to attempt to include all possible policies in an agreement and to close all loopholes. Even if it were possible at a high level, it would be impossible to implement or to monitor implementation.

Assume, however, that the conditionality is disinterested, sound, and in the interest of the borrowing developing country. The concessional or

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grant component in the loan entitles the creditor to impose conditions beyond those that provide the capacity for repayment of the loan. The conditions, relating to macroeconomic policies, are, as it were, "bought" with the grant component. In that case the reverse of an often argued position would be true. It is often said that soft loans are inefficient and wasteful because they reduce the incentive of the borrower to apply hard-nosed criteria to the use of the loan. But on our assumptions, the adoption of correct macropolicies ensures the efficient use of the loans much better than a narrow concentration on the project would. The rationale of the soft component in the loan is that it buys more efficient policies with respect to exchange rates, budgets, money supply, operation of public enterprises, etc.

Conditionality in lending policy has often been regarded as excessively intrusive. This is true not only of bilateral, but also of multilateral aid. Even if the conditions are correct and in the interest of the recipient country—and our knowledge of this area is still rudimentary—and even if the domestic policymakers agree, the fact that they are "imposed" by an outside body tends to create irritation and acrimony. It can also weaken groups within the country that favour these policies. Yet, it would be unreasonable to propose that money should be lent or given without regard to its use by the recipient. There are three possible solutions to this dilemma.

However irrelevant some aspects of Marshall Aid, whose 40th birthday we have just celebrated, are to the developing countries today, the method that was used to monitor it can still teach us an important lesson. The Europen countries were asked to monitor one another's economic performance, thereby avoiding the heavy-handed intrusiveness of a large donor imposing performance criteria. This worked well, and was widely accepted.

But it may be said that Marshall Aid is not an appropriate model even for an institutional framework for partnership and mutually monitored conditionality of aid. The Alliance for Progress initiated in 1961 is said to be a better model, and it is also said to have failed. It is true that the radical reforms envisaged were never implemented. But Latin America did advance, reduced its dependence on the United States, laid the foundations for the rapid growth in the 1970s, and conducted massive investment in human resources. Recently, there has been a widespread return to democratic government. Nevertheless, the negative lessons of the Alliance, as well as its positive lessons, should be learned.

A second method would be to appoint a small group of independent experts, experienced men and women who are trusted by both donors and recipients, and who would periodically report on progress. Such a review body would add authority and credibility to assessments and

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recommendations.

A third method would be the creation of a genuine transnational secretariat, trusted by the international community of both donors and recipients. The existing international institutions have not yet achieved this, partly because of their nationality quotas in recruiting staff or at least insistence on some balance in their staff as to their countries of origin, partly because of their location, partly because of their method of recruitment and training, and partly because they are intergovernmental organizations. What would be needed is a reform that would create a truly global (rather than inter-*national*) civil service, with loyalties only to the world community, recruited by merit, with expert training, but with sensitivity to local political, social and cultural conditions. It would operate from regional offices in the developing world, so as to gain from day-to-day contact with policymakers. The contact would be not only at the highest level but also at the middle level of technicians. The staff would take a view that transcends national policies. It would not be afraid to participate, where desirable, in the management, as well as the financing, of projects, with the mandate to train and hand over to local managers in due course. Such a reformed global entrepreneurial and civil service would make a genuine contribution to development, both because of its expertise and because it is trusted by both advanced and developing countries.

NOTES

1. Bevan *et.al.* (1987).
2. Hicks and Kubisch (1984), p. 39.
3. Ahmed (1981).
4. Khan (1986).

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JAPANESE CORPORATIONS: THEIR PRESENT AND FUTURE

TAKATSUGU NATO
Professor of Political Economics,
Graduate School of Tokyo International University.

"Japan Inc." must shift from 'Japanese Sovereignty Testing with Corporation' to good corporate citizenship on a global scale.

Japanese corporations are branded "groups of economic animals" overseas. Foreign critics of Japanese corporations are concerned particularly over the ominous Japanese collectivism, in which the huge economic power is being combined with an equally influential military power. Even in Japan, an opinion survey report recently made public by the Prime Minister's Office revealed that as much as 22 per cent of the respondents do not feel they are really affluent. Why is it that so many Japanese people feel they are really not affluent despite the fact that Japan as a country is now an economic superpower? To put it simply, Japan is being plagued by an *economy which oppresses the majority of its people* in favor of a back-scratching alliance of government and business under 'Japanese sovereignty resting with Corporation'. This is a plutocrat-dominated bubble economy (bubble means hidden property).

For example, Recruit's way of doing business is typical of Japanese corporations. That is why many Japanese people including Japanese corporations and mass media, are intent on ostracizing Recruit in a mood of self-humiliation. Recruit has grown rapidly through outrageously aggressive selling of "idea" products backed by its huge financial resources. Its way of doing business has been characterized by full use of the structure of "Japan Inc." which has thrived on a cozy relationship between politics and business, and enormous accumulation of latent assets through its firm belief in land price spirals and 'land standard system'.

Why is it then that in New York you can purchase a product at a price less than half that you would be paying for the same product in Tokyo? The yen is strong internationally thanks to the high international competitive power of Japanese high-tech industries. The yen rate now stays at a level of about 130 Yen to the dollar. Domestically, however, the yen' real value has declined to a level of 300 Yen to the dollar due to a recent sharp decrease in consumers' purchasing power which reflects considerable increases in housing and food expenses. While the yen's upward trend on

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foreign exchange markets has brought about decreases in prices of imported products and materials, which has served to offset to some extent the effects of high prices of domestically manufactured products, the high price structure of the domestic market which is dominated by big manufacturers has not collapsed yet.

Thanks to the excessive government control and protection of industry, as well as Japanese industry's tendency to have recourse to opportunistic self-regulation, an *oligopolistic pricing system* which automatically generates profits for big businesses (and which is akin to a monopolistic pricing system exemplified by high land prices) has prevailed. The Japanese export drive backed by low prices which were made possible through the "*greenhouse effect*" of big businesses' control of the domestic market has resulted in trade frictions.

The merits of low prices of imported products and materials have eventually been absorbed into the above-mentioned "greenhouse effect," failing to deal a fatal blow at Japanese big businesses. Is it unlikely that the *economic system which oppresses Japanese consumers* will come to ruin?

In ancient times, Japan was called "Wa-koku" (country of Wa). "Wa" means "obeying the boss unconditionally." Japan has long been a tribal society, where still remains the lamentable custom of making much of the government and nothing of the people. In such a society, more importance is attached to a group or organization itself than to its members and their lives. The custom peculiar to Japanese society was prevalent in the Japanese army in prewar days and is prevalent even in Japanese corporations of today. This custom exists in Japanese society as an eternal symbol which transcends individuals, who are considered finite. This can be compared to the social system of bees, where worker bees work very hard for the queen bee seemingly believing that their hard work will contribute to the lasting prosperity of their species and their society.

On the other hand, however, a business corporation which is an organization consisting of individuals is basically an ethical entity, although Marxists in whose views all that matters with a business corporation is capitalized will not acknowledge any human subjectivity.

As business corporations are the most powerful organizations in modern society, the bigger they become, the heavier their social responsibility should be. However, modern economists of the Samuelson school do not hesitate to make light of ethics and morals, confining themselves to their narrow-minded view of economics—economic rationalism.

Conventional management science has admitted that business corporations can pursue profits only when they operate in such a manner that satisfies the following 5 preconditions: (1) belief in the need to meet man's materialistic desires, (2) belief in the merit of being big—"Big is Better," (3) belief in infiniteness of natural resources and the environ-

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ment, (4) belief in market mechanism, and (5) belief in the preponderance of the modern centralized state.

However, it is truly the nation's *current tax system*, where sovereignty rests with big businesses, not with the people, that most exactly reflects the actual condition of "Japan Inc". I have detailed this point in some of my previous articles and books. Reflected in the nation's tax system are Japan's traditional national policies of "wealth and armament of the country, increase of production and promotion of industry." The planned introduction of a large-scale consumption tax is also within the framework of this national policies. Such phrases as "10, 5, 3 and 1" and "the classes of warriors, farmers, artisans and tradesmen plus salaried workers" imply that there still exist class distinctions in this country.

Accordingly, similar class distinctions exist in the Japanese business community today. If the ratio between the power elite or the management men and the rebellious men is 2 : 2, the middlemen who hold a majority in the Japanese business community have mostly been organization men as the dependent. But many of these organization men have recently realized that they are individuals with distinct preferences, and as a result have become aware of their own personal needs. They are becoming multi-faceted individuals who attach equal importance to their workplaces and their private lives. They have become conscious of their own value as employees, consumers and community residents, and even as members of the world family.

Japanese businessmen are fond of saying, "A company's value is judged by its people." And it seems that many Japanese businessmen have just woken up to the true meaning of this sentence. In Japan, it is business corporations, rather than schools, that are most interested in the development of human resources. (Japanese business corporations are reputed for their elaborate in-house training of their employees. But in recent years, American business corporations have also become interested in the development of abilities of their employees).

On the other hand, however, it appears that force of habit prevents Japanese corporations from getting rid of their traditional market share/profit orientation. Furthermore, as this is an age of plutocracy, it seems very difficult for even most honest Japanese corporations to resist this force of habit. But history is made often by a handful of democratic pioneers, although their initial attempts to make history may sometimes give rise to dictatorship.

Being essentially a country highly dependent on external trade for its growth, Japan finds it very difficult to continue to insist on its own special rules in the international businesss community. This means that the "Japan Inc." has no choice but to seek to be a good corporate citizen on a global scale.

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Pressures in that direction are coming not only from outside. For business corporations, in-house innovations are the very force that keeps them moving forward. And it is their employees' strenuous daily efforts to be more innovative that support such in-house innovations. The impact of employees' self-innovations both inside and outside of their workplaces is immeasurable. It is no exaggeration to say that each employee is the business innovator and is at the same time the manager of himself or herself.

Prof. Lester Sarrow of the MIT writes, "In the future, it will be essential for Japan to enforce a drastic industrial restructuring to apply part of its high international purchasing power to its low domestic purchasing power." I agree with him regarding this point. But I do not agree to his argument that "this may cause some of Japan's export market-oriented manufacturers to be losers, but it will at the same time benefit many of Japan's domestic market-oriented manufacturers, with profits and losses canceling each other out." The question is whether the socio-economic status of employees as life innovators who have very far suffered so much, not their employers, can be raised. If the life innovators can break away from their unfavorable roles in society as a result of such a structural reform, it will place their employers at a disadvantage.

If export prices of Japanese-made products become nearly equal to their domestic prices, it will be impossible for Japanese manufacturers to export their products on the basis of Yen 100 to Yen 130 to the dollar. (The yen rate must stay at a level of Yen 200 or more to the dollar if Japanese manufacturers are to export profitably). Thus, it is expected that Japan's exports will decline. If, on the other hand, low prices of imported products and materials have direct effects on the market mechanism, there will be a substantial increase in Japan's imports, which in turn will help eliminate Japan's trade frictions. To this end, it is imperative to form public opinion in favor of the life innovators' standpoint and at the same time eliminate outdated government regulations.

If Japanese society is multi-polarized to a point where the standard of living of the life innovators are raised substantially and if, as a result, the above-mentioned imbalance is eliminated, Japan's abnormally high international competitive power will decline, which in turn will help normalize the world trade pattern.

Under pressure from those employees who became conscious of their own value as life innovators, Japanese employers have been forced to go beyond confrontation between management and labor to acknowledge community of interests. On the other hand, the consumer movement and volunteer activities have served to promote business management responsible to communities. But now such other pressures as trade frictions demand that they should be responsible to communities on a global scale.

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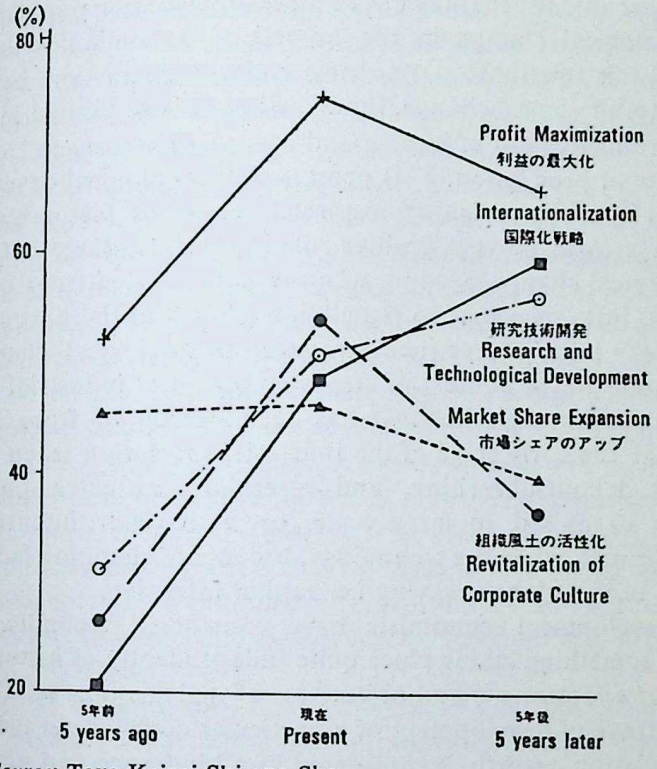
This will lead to the emergence of *socially responsible corporations* which operate in accordance with the principles of symbiotic relationship.

And here lies the guiding principle of business management for Japanese corporations.

Therefore, there will occur such changes as shown in the figure below in Japanese corporations' strategic goals. Particularly noteworthy in the figure are the downward trends of the goals of "market share expansion" and "profit maximization." This implies that Japanese corporations are attaching more importance to the goal of "realization of corporate social responsibility".

CHANGES IN JAPANESE CORPORATIONS' STRATEGIC GOALS



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POPULATION, TECHNOLOGY AND ECONOMIC DEVELOPMENT*

PRIYATOSH MAITRA
Department of Economics
University of Otago, New Zealand.

A critique of Boserup's Population and Technology.

This paper intends to study the relationship between population growth and technological change in the process of economic development. To understand this relationship, one must make a distinction between two sources of technological change. Firstly, when it is generated indigenously by more productive use of human and natural resources and changes in organisation of production. This process of technological development is determined by a country's own historical needs and factor endowments. Population growth plays a positive role in the early stage of this process of technological change. Second, when it is introduced from outside and as such, has little relevance to population growth of the host country.

Again, the latter source (i.e. introduced technological changes) is to be understood in the context of stages or period of industrial growth i.e. whether this technological change has been introduced from the United Kingdom at the early stage of the industrial revolution when technology was simple, labour-absorbing, and essentially an extension of proto-technology organised in large scale, or at its later, intensive stage of industrial growth when the technology, because of changing factor endowments, has become labour saving i.e. capital intensive.

Most development economists have considered technology and its changes as something taking place quite independently of historical conditions, factor endowments and objectives of production suitable to the particular stage of development of a particular country. As such, in their view, population growth is considered as a hindrance and not as conducive to indigenuous technological growth and economic development.

Ester Boserup in her two pioneering works on the inter-relationship between population growth and technological change [The Conditions of Agricultural Progress (1975) and Population and Technology (1981) has unfortunately made no distinction between indigenously generated techno-

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logical changes and transplanted ones and thus failed to highlight the basic problems facing the Third World countries in their efforts towards development. We will discuss Boserup's views in the next section, followed by an analysis of the relationship between population growth and technological change in industrial growth from proto-industry to intensive growth phase and its implications for economic development of Third World countries.

Section 2

Ester Boserup in her recent work "Population and Technology" (1981) has attempted to develop the idea that "population change is a major determinant of demographic change"[1] (Preface). This work of Boserup is a development of her earlier work "Conditions of Agricultural Growth", where she showed that population growth has resulted in changes in land use patterns from long fallow to short fallow to annual and multiple cropping.[2] Population growth thus resulted in changes in cultivation practices from extensive to intensive cultivation and changes in tools and implements—from wooden to iron to steel, and to mechanical ones. She has also shown with ample historical illustrations changes in land ownership patterns from primitive days to the present day. As a source of research material Boserup's two volumes are of immense importance. I would also like to mention another important recent work of D. B. Grigg (1980) which has dealt with changes in agricultural practices and land tenures as a result of population changes.[3] Boserup however has attempted to develop her theory of inter-relationship between population growth and technological change using the economic history of major countries of Europe, Asia, Africa and Latin America and then to apply it to the analysis of underdevelopment of the Third World countries. Grigg has a different approach in this respect in the sense that he has shown the changes in agrarian practices and the rise of proto-technology and modern industry, with changes in population growth in its historical perspective. He then attempts to apply this experience to examine problems of the Third World countries.

In my earlier work (1980)[4], I have attempted to utilise the concept of population pressure spurring agrarian innovation leading to the industrial revolution as propounded by many economists and economic histo-

[1]Ester Boserup, Population and Technology, Blackwell, Oxford, 1981.

[2]Ester Boserup, Conditions of Agricultural Growth. London, Allen and Unwin, 1965.

[3]D. B. Grigg, Population Growth and Agrarian Change, Cambridge University Press, London 1980.

[4]P. Maitra, The Mainspring of Economic Development, Croom Helm, London, 1980.

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rians including Boserup (in her earlier work). I develop in that work the idea that population pressure—its rate of change and not its density alone (see Maitra 1981), is the indispensible condition for the growth of indigenous technology. As such the first, and in my opinion, so far the last country to develop indigenous technology with concomitant changes in agrarian and industrial organisation leading to the industrial revolution, was Great Britain and this was the result of an unprecedented rate of growth of population. The other industrialised economies that emerged in subsequent periods are all based on imported technology, and this could be easily detected by comparing the rates and patterns of population growth and agricultural and industrial growth in England with that of any other industrialised capitalist country of the world. If we examine Boserup and Grigg we can see this difference and this aspect has a serious implication for approaches to the development of Third World Countries with imported capital technology. Neither of these two authors has high lighted this important point. However, Boserup and Grigg like many other economists have advocated the transfer of technology to the Third World countries to mitigate the pressure of population on resources and achieve higher productivity. Not one development economist has pointed out the need for indigenous technological growth when the rate of growth of population beeomes acute. It might be argued that because these Third World countries are facing a tremendous pressure of population on their resources, the only logical way that follows from Boserup's thesis is to borrow suitable technology as was done in other successful late industrialising countries in the nineteenth century. Boserup, Grigg and most economists, including Marxists, do not consider the changes in the composition of technology that have taken place since the late nineteenth century as a result of the emergence of labour saving technology in the second phase of industrial growth in the UK and in other industrialised countries of Europe and America. Imported industrialisation, in that sense, will begin in urban centres to meet their needs first and then, is expected to spread to the rural sector.[5] The sources of financing imported industrialization obviously are big mercantile capitalists and absentee big landowners. I have discussed this aspect in my earlier work "The Main spring of Economic Development (1980)[6]. In that work I depicted the industrialisation process in the USSR and China as cases of the industrial

[5]Paul Bairoch, Agriculture and the Industrial Revolution in C.M. Cipolla (ed.) The Industrial Revolution (Fontana, London, 1973) pp, 488–492. Paul Bairoch pointed out this difference in terms of growth of the iron and steel industry in England to meet the growing of the agricultural economy, whereas in France and Germany, the iron and steel industry owed origin to the needs of the railways, ship-building and consumer goods industries. (See also Maitra, 1980).

[6]P. Maitra, The Mainspring of Economic Development, Croom Helm, London, 1980, pp. 48–93.

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revolution of the twentieth century because the industrial growth in those countries, unlike other latecomers of the nineteenth century, evolved from agriculture. Undoubtedly agriculture on the eve of industrial development of any country is the major source of economic and social activities, with 85–90 per cent of population depending on it for a living. However, the socialist economies have failed to develop any socialist technology evolving from agricultural development under socialism to serve the objectives of socialist production as their agricultural and industrial technology is essentially based on capitalist technology.

Boserup, like other authors dealing with the role of technology in economic development, has not made any distinction between indigenous technology and imported technology in terms of their effects on economic, social and cultural development. According to her, population pressure would create the need for technological change which could be met by technology transfer from advanced societies. It is true that technology transfer before the industrial revolution from East to West and also during its early stage (i.e. extensive growth stage) from Britain to Europe did not create any hindrance to development except temporarily as in France or Germany. Technology was simple and labour absorbing, and these latter countries already had a developed and diffused proto-technology which could easily absorb imported technology, the level of which was not very high relative to their prevailing proto-technology. But at the intensive growth stage when technology became highly labour dispensing and energy intensive due to high economic growth and changing factor endowment situations in these economies, transfer of this technology to labour surplus economies would have disquieting effects in terms of development. These are already evident in all Third World countries in the form of educated unemployment disguised unemployment and social discontents. This aspect together with the fact of an unprecedented rate of growth of population and its density in the Third World countries today which have failed to generate their own technology to suit their factor endowments, has been completely ignored in Boserup's model.[7] It is one thing to say that population pressure generates technological change, which implies indigenous technological change; another to say that more productive technology is being imported to solve population pressure on resources. Obviously one is a result of more productive utilisation of population and the other is a case of a transfer of productivity from another country and thus fails to absorb local population in the process of production. The problem becomes acute when this imported productivity results from a production function of a labour saving

[7]P. Maitra, Ibid., pp. 70–93, also see author's paper Technology Transfer, Population Growth and the Development Gap in P. Bairoch and L. Laboyer (Eds.) Disparities in Economic Development Since the Industrial Revolution, Macmillan, 1981.

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technology of an economy where labour is scarce and a most expensive factor.

A brief analysis of the relationship between population growth and technological change based on studies of Boserup and Grigg would be helpful as a background to the ideas developed in the present work.

Boserup and others dealing with these relationships consciously or unconsciously ignore an important factor involved in this process of changes i.e. the emergence of class relationship and changing population and technology. The transformation of methods of production was functionally related to the growth of population as the source of surplus labour, which is the foundation of the class system. Changes in the nature of surplus labour, in the class system and the mode of production are related to various levels of population growth. Thus changes, from the origin of slavery to feudalism to capitalism via mercantile capitalism, increases in population growth acted as the basic force.

Surplus value existed in all societies, but in primitive communist societies and modern communist societies, surplus value or labour was meant for the entire society and not for appropriation by any particular group or class. In primitive society food and shelter were meant for all people including children and the old who could not take active part in the supply i.e. surplus labour was used for these groups of people for survival. Although the number of people was very small, with no or little knowledge of man-made tools, the entire labour of the society was essential for the survival of the people against a harsh unknown environment. The supply of food was extremely uncertain and non-storable and therefore the question of class exploitation could not arise. Modern communist societies are expected to evolve by eliminating class exploitation of surplus labour via socialist system, into classless societies where surplus labour is used for the betterment of the entire society.

In order to understand the place of technology in the Marxist system this aspect of the role of population in the evolution of class systems needs systematic study. Unfortunately, few have attempted to do so.

Technology began in the past in the form of extensive land-use practices. When population density and rate of growth were small, the need for large output was limited, nor was it possible to increase output because of limited supply of the only active factor, labour. Land supply was unlimited relative to population density and therefore, long or forest fallow technique evolved followed by short or bush fallow with the growth of population when it was not possible to leave land for a longer period as fallow. With further growth in population, annual and multiple cropping practices emerged gradually accompanied by the use of various kinds of simple wooden tools and ploughs followed by iron ones in the days of proto-technology.

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It has been shown by many authors including Boserup that land use practice has changed gradually from extensive to intensive cultivation i.e. from long to short fallowing, and to annual and multiple cropping as a result of the growth of population. The practice of shortening of fallow to annual and multiple cropping was necessitated by increasing requirement of rising numbers of people which in their turn supplied an increasing number of hands to make these changes possible. During and after the medieval ages, increased pressure of population brought about the types of changes in cultivation methods which might be expressed as technological changes i.e. changes in methods of combining available factors of production—land and labour. Annual and multiple cropping, in turn, necessitated the evolution of better ploughing, better tools, irrigation, weeding etc. with population growth acting as a stimulus to increased production in the form of demand and as a source of supply of labour necessary to introduce the above changes. However, it is to be noted that the population growth in those days was not sustained for a long time because it was frequently punctuated by epidemics, diseases, malnutrition etc. and crop failures as production methods were largely dependent on the mercy of nature. Malthusians would argue that these fluctuations were essentially due to a high growth rate of population leading to diminishing returns. Whereas Marxists would argue that class divisions of the society were largely responsible for these fluctuations as during the period of shortage of food supply, due to natural calamities, poorer people invariably suffered malnutrition resulting in epidemics and death. Land owning classes had surplus food stored year after year which were actually produced by those poor people and submitted to the landowners as rents etc. Therefore class exploitation was the reason behind this fluctuation in population growth and not the over-population; otherwise equal distribution of food, shelter and clothing produced by all members of the society would have led to an increased population resulting in the industrial revolution long before the eighteenth century. This conclusion may be drawn from Marx's concept of population and its place in economic development.

However, when population growth at the short fallow and annual cropping stage resulted in factor disproportion and, therefore, in the operation of law of diminishing returns the use of animal plough and wooden and iron farm tools became economical. It made surplus labour more productive and thus helped to increase the supply of output available for the increasing population. The increased population made possible further extension of division of labour necessary for the introduction and improvement of simple agricultural tools, horse shoes, saddles etc. and implements, as well as non-agricultural products and in this way proto-technology began to evolve. Thus change in technology became

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indispensible to augment and diversify output under the changed land/labour ratio in order to feed and clothe the growing population. "One kind of such change is that in which rural communities change over from one kind of tool to another (e.g. from digging stick to hoe or from hoe to plough) but continue to use primitive makes of these tools produced by cultivator himself or by a village blacksmith".[8] The reason for following primitive makes was that the population growth was not sufficient enough to need more productive methods neither was it possible at that level of population growth as we will see that a sustained high rate of growth of population in a later period resulted in agrarian innovation leading to the industrial revolution.

Boserup's thesis suffers from the following limitations: 1. Little has been said about the different effects of technology transfer between two periods i.e. pre- and post-industrial revolution due to differences in labour contents of technology of the two periods. It is also important to recognise that the labour content of technology in the early period of the industrial revolution i.e. extensive growth period differs quantitatively in terms of labour content per output from the technology of the later period of the industrial revolution i.e. the intensive growth process. These changes in the labour content of technology are essentially related to different trends in population growth and economic growth stimulated by international trade. Thus, effects of technology transfer in 1850 and 1880 would have more favourable development effects than in 1900 and in particular, since the 1950s, as in the case of the Continent as against the experiences of the Third World countries. 2. No distinction has been made of the nature of population growth of the two periods i.e. nineteenth and twentieth centuries. Yet their differences have a lot to do with the success of technology transfer in the nineteenth century and its failure in the mid-twentieth century. In the nineteenth century population growth was a result of the high birth rate due to economic growth which stimulated demand for labour and supplied better food, shelter, nutrition and clothing, and also better medical facilities which resulted in falling death rate. Today, in the Third World countries, although a falling trend in the fertility rate is visible, mortality has fallen at much greater rate than it did in the nineteenth century, not because of better food, shelter and clothing but mainly because of sophisticated medical technology imported from overseas. This trend has nothing to do with economic growth-rate which is, paradoxically, higher today than it was in the nineteenth century, but with much less demand for labour in the process of production. This is evident when one takes into account the difference in sectoral distribution of labour force between the two periods. These differences must have

[8]Ester Boserup, The Conditions of Agricultural Growth, 1975, p. 17.

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serious implications for a theory which emphasises the inter-relationship between population growth and technological change. 3. Boserup has measured technological levels of a large number of countries of the world including the Third World and in doing so, she has classified many underdeveloped countries in medium technology levels just below the countries at highest level of technology (Table 1).

TABLE 1

DISTRIBUTION OF COUNTRIES BY TECHNOLOGY GROUP

Region	Technology Group				
	1	2	3	4	5
Europe	0	0	0	5	21
Oceania	0	0	1	1	2
America	1	1	8	13	2
Arab region[a]	1	2	11	3	0
East and South Asia	4	6	4	3	1
Africa[b]	20	17	2	1	0
Total number of countries	26	26	26	26	26

[a]Western Asia and Northern Africa, [b]Excluding Africa.
Source: E. Boserup (1981), p. 14.

Can a country with an underdeveloped economic structure with the vast majority of population using primitive technology be classified as belonging to the medium technology levels? If so, then there exists no relationship between population growth and technological change. Importation of high technology at the cost of development of local human resources and growth of indigenous technology cannot make a country rank as a high technology economy. An underdeveloped economy belonging to a high or medium technology level sounds unrealistic and self-contradictory. This technology reflects the level of technology of the country of origin. When population pressure generates technological growth, it is obviously expected that it would bring about changes in economic structure and more productive utilisation of the labour force. This has not happend to the Third World countries as a result of introduction of technology from the West. This type of technological change introduced in these economies has not reduced the pressure of population on resources but rather aggravated it as it is evident from the nature of disguised unemployment and stagnating economic structure. 4. A brief reference to the case of China is required here. According to Boserup, around 1500 A.D. China had the largest population of 150 million and at the

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same time she was the uncontested technological leader on a world scale. But in the following two hundred and fifty years, the population in China increased to 225 million i.e. a rise of about 0.2% per annum while in Europe in the same period it increased from 70 to 135 million i.e. a rise of about 0.4% per annum. China began to lag behind Europe in technological development. If we consider the period of the industrial revolution in the U.K. in terms of technological change and population growth we find an unprecedented rate of growth of population with technological change taking place in England while in China it was the reverse i.e. population growth rate was much lower in China being 0.6% per annum, while in England on an average over one per cent per annum during this period. When intensive growth in industrialisation was in rapid progress in Europe beginning 1880s, fast technological sophistication resulted in decline in population growth to 0.7%, while in China as a result of contact with imported Western technology in this period population began to rise at an annual rate of over 1.3% and in recent times at a much higher rate (over 2%)[9] (See Table 2).

TABLE 2

POPULATION ESTIMATES FOR WORLD REGIONS

(in millions)

Regions	A.D.1	1000	1500	1750	1900	1975
China	70–90	50–80	100–150	190–225	400–450	800–900
India, Pakistan, Bangladesh	50–100	50–100	75–150	160–200	285–295	740–765
Southwestern Asia	25–45	20–30	20–30	25–35	40–45	115–125
Japan	1–2	3–8	15–20	29–30	44–45	111
Remainder of Asia, exc USSR	8–20	10–25	15–30	35–55	110–125	435–460
Europe, exc USSR	30–40	30–40	60–70	120–135	295–300	470–475
USSR	5–10	6–15	10–18	30–40	130–135	255
Northern Africa	10–15	5–10	6–12	10–15	53–55	80–82
Remainder of Africa	15–30	20–40	30–60	50–80	90–120	315–335
North America	1–2	2–3	2–3	2–3	82–83	237
Central and South America	6–15	20–50	30–50	13–18	71–78	320–335
Oceania	1–2	1–2	1–2	2	6	21
Total	270–330	275–345	440–540	735–805	1650–1710	3950–4050

Source: John Durand, "Historical Estimates of World Population: An Evaluation", *Population and Development Review*, 3, no. 3 (New York, 1977), from Boserup (1981), p. 10.

Note: Because of the large margin of error, Durand gives "Indifference ranges", i.e. limits within which he sees little ground for preference between the lower and the higher figure.

[9]Ester Boserup, Population and Technology, Oxford, 1981, p. 10.

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The account of India over the same period will tell the same tale. India had a highly developed and diffused proto-technology[10] when population growth rate was small. When population began to increase at a faster rate with the introduction of Western medical technology, the indigenous technology of the past was not stimulated to develop but rather forced to die due to the impact of foreign technology. In the case of England, use of higher technology in the late 19th century resulted in the demise of small scale industries, but as these technologies evolved in England they gradually absorbed their people thrown out of employment. The relationship between population growth and changes in agricultural technology is widely discussed today (See Boserup, 19 and Grigg).

In the following sections, therefore, we would like to discuss this relationship in the process of industrial growth from proto-industry through manufactory based on division of labour, to factory organisation based on mechanical power. This process, again, may also be divided into two phases i.e. extensive growth phase and intensive growth phase of the industrial changes. Boserup has left these phases out of her discussion on the relationship between population growth and technological changes despite the fact that these changes signifying technological growth in response to economic growth are basically results of changes in population growth patterns. Development economists in general have ignored this aspect of technological change in their approaches to economic development of Third World countries. Rapid population growth in the Third World countries particularly since the 1950s has undoubtedly created a serious concern among development economists, planners and policymakers for the need of technological change to reduce this problem of pressure on resources. But the contemporary development doctrines of all schools prescribed, (i) technology transfer from developed economies to increase productivity, and (ii) reduction in population growth as the solution. Consequently, all these developing countries began industrial growth as a response to their population pressure from the second phase i.e. intensive growth phase of industrial growth and, thereby, left human resources underdeveloped. Let us elaborate this point.

[10]I. Habib, "India had much larger and richer urban centres than in the West", in the Agrarian System of Moghul India, 1556–1707 (Asia Publishing, Bombay), p. 35. U. Dharampal, Indian Science and Technology in the 18th Century (Impex India, 1971): India had a prosperous trading system and marketing network with flourishing handicrafts and cottage industries with their relatively advanced technology. See also D. R. Gadgil, The Industrial Evolution of India, 1860–1939, 5th edition, Oxford University Press, 1972, Chapters 2 and 3; P. Maitra (1980), p. 154; Alicher van Bath, The Agrarian History of Western Europe, A.D. 500–1850 (Arnold, 1963), pp. 239–41.

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Proto-technology and Rise of Modern Technology: England and France

Merchant capital in the days of proto-technology took advantage of the emergence of the "social surplus labour" resulting from the increased pressure of population on the land to open up foreign and national markets by exploiting a rural substratum living on poor or insufficient land, and depending on rural subsidiary occupations. According to neo-Marxists, with growth of population, increased "numbers of child labour" created the specific conditions to which the entire family labour was subjected in pro-industrialisation.[11] In England, although the laws of the family economy functioned as the engine of the proto-industrial growth they also stood in fundamental contradiction to the growth-dynamic or the overall system. The only way out of the crisis was mechanisation coupled with centralisation. In Continental Europe, however, industrialisation was primarily a response to the English change (and was based on imported capital and technology from them), the transition from proto-industrialisation took longer. Although proto-industrialisation provided certain conditions for a capitalistic industrialisation they were not sufficient to actually introduce the process of industrialization.[12] The proto-industrial system was marked by internal contradictions which gave rise to serious problems during its growth phase. If these were not resolved, and if the necessary "general framework" was lacking or insufficiently developed, then the transition to industrialisation might fail and de-industrialisation take place.

According to a study by V. Skipp, where enclosure and spreading rural industry did coincide, the prime agent was probably not enclosure but population growth.[14]

Hicks wrote: The Industrial Revolution is the rise of modern industry, not the rise of the industry itself.[15] This explains the gradual rise of modern industry with the growth of population. In the pre-industrial revolution period when the population was growing but at a lower rate, sometimes at a negative rate (e.g. the Black Death or the Hundred Years War) it still increased problems of surplus labour of some sort at the existing level of agricultural technology. This situation resulted in the growth and expansion of household industries as subsidiary employment to serve non-agricultural needs and simple agricultural tools as well. Well

[11]P. Kriedle, et al. Industrialisation before Industrialisation translated from German by Beate Schenepp, Cambridge University Press, 1981), p. 57.

[12]P. Kriedle, et al., Ibid., pp. 145–146.

[13]D. C. Coleman, Proto-Industrialisation, Economic History Review, Vol. 36, No. 3, August, 1963, p. 439.

[13]V. Skipp, Crisis and Development, 1570–1674, Cambridge University, 1978.

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before the beginning of the machine industry, many regions of Europe became increasingly industrialised in the sense that a growing proportion of their labour potential was allocated to industry.[16] This first phase of industrialisation was marked by the rapid growth of traditionally organised rural industry which may be called proto-industrialisation. This process of industrialisation emerged as a means of improving the time pattern of workers and did not result so much in increasing the productivity of labour as increasing the productivity of workers. This was how the off-period labour in those days was engaged to augment income so that the problem of underdevelopment in agriculture with a growing population could be resolved, The adoption of industry by a growing number of peasants during proto-industrialisation meant that labour previously unemployed or under-employed during a part of the year was put to work on a more continuous basis.[17] Usually peasants who had not enough land became weavers to supplement family income. The basic tools in most of this industrial process were simple and therefore sunk capital needs, were negligible. The main form of capital was working capital (mainly wage payments) initially supplied by the household i.e. labour of the household member; when the market expanded gradually requiring hired labour, urban merchant entrepreneurs supplied this growing need of working capital in the form of wages, raw materials, goods in process etc. But when the population began to increase at a very high rate in the late 18th century, and consequently the demand for textile and other proto-industry products (mainly essential non-agricultural) the cost curves of the manufacturers began to move upwards as a consequence of the operation of the law of diminishing returns with technology remaining stagnant and organisation remaining household, spare-time labour based.

According to several studies, cottage industry affected population growth trends. The development of a labour intensive industry by the peasants made it possible for them to increase their numbers without corresponding increase in arable surface.[18]

However, Joan Thirsk observes that population growth, stimulated the expansion of rural manufacturers. There was mutual and continuing

[15]J. R. Hicks, A Theory of Economic History, Oxford, 1969, p. 141.

[16]F. F. Mendels, Proto-Industrialisation, Journal of Economic History, Vol. 32, No. 4, 1972, p. 214.

Domenico Sella, European Industries, 1500–1700 in Cipolla (Ed.), Vol. 2, Section 5, The Fontana Economic History of Europe, London, 1970.

[17]F. F. Mendels, Ibid., p. 242.

[18]R. Braun, The Impact of Cottage Industry on an Agricultural Population in D. Laudes (ed.), The Rise of Capitalism, MacMillan, N.Y., 1964.

[19]Joan Thirsk, Industries in the Countryside, Essays in Economic and Social History of Tudor and Stuart England, 1961, pp. 70–78 and p. 37.

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interaction between industrial and demographic growth and rural industrialisation was not therefore generally accompanied by sustained increase in the standard of living.[19] According to Mendel the regions of proto-industrialisation were marked by most rapid demographic growth.[20]

An increased supply of labour and limitations on the side of production costs on the one hand and an accumulation of capital in the hands of merchant capitalists accruing through the financing process of proto-industrialisation on the other, necessitated the introduction of a new production function. This resulted in large scale production based on the division of labour and on machinery with its relatively higher capital costs. Subsequently, when economic growth resulted in an increased demand for labour this process began to raise the cost of production and mechanical power was used to reduce the labour costs. This process Marx termed intensive growth i.e. production organised in factory system based on mechanical power. This will be discussed further, later in this section.

It is well known that the first English factory builders originally came from the merchant class, and according to Musson and Robinsom, many of the machine builders of the industrial revolution in England had been trained in the old handicraft industrial sectors.[21] E. Hobesbawn made a very pertinent point on the types and quality of factor inputs in use at this juncture of industrial growth. He writes: "The early industrial revolution was technically rather primitive not beeause no better science and technology was available ... it was simply because, by and large, the application of simple ideas and devices often of ideas available for centuries, often by no means expensive, could produce striking results".[22] There was a plentiful supply of labour which could be used to make more fruitful use of ideas available for centuries at a reduced cost by growing numbers of practical men ready to put their minds to organise the available labour. Hobesbawm adds "this situation put it within the reach of an enterprising, not particularly wealthy, body of businessmen and skilled artisans, operating in flourishing and expanding economy whose opportunities they could easily seize. It minimised the basic requirements of skills, of capital, or large scale business ..."[23]

The pressure of population on agriculture brought about the use of iron plough and other implements, horse, shoes wheel-rims, cottage industry tools and so on. Thus the greatest civilian market for iron was still agricultural. The real industrial revolution in iron and coal evolved from the above process of the first stage of industrial growth. But the iron and

[20]F. F. Mendels, op. cit., p. 252.

[21]A. E. Musson and E. Robinson, Science and Technology in the Industrial Revolution, Manchester University Press, 1969, p. 35.

[22]E. J. Hobsbawm, Industry and Empire, Pelican Harmondsworth, 1969, p. 60.

[13]E. J. Hobsbawm, Ibid., p. 60.

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steel industry in latecomer countries owed its existence to the needs of railways introduced with help of foreign capital and skills.[24]

Hobesbawm, writing about the necessary conditions for the rise of the industrial revolution, rightly stressed the conditions suitable for extensive growth i.e. the industrial revolution begins by using existing resources (labour, skill and capital) more productively and thus paves the way for intensive growth. The technological problems of the early industrial revolution were fairly simple. They required no class of men with specialised scientific qualifications, but merely a sufficiency of men (which population growth by then began to supply)—with ordinary literacy familiarity with simple mechanical devices (proto-technology of later stage helped in this matter) and working of metals, practical experience and initiative. The centuries since 1500 had certainly provided such a supply. Most of the new technical inventions and productive establishments could be started economically on a small scale, and expanded piecemeal by successive addition. That is to say, they required little initial investment and their expansion could be financed out of accumulated profits. Industrial development was within the capacity of a multiplicity of small enterpreneurs and skilled traditional artisans.[25]

Extensive and Intensive Growth Phases of Industrinlisation

We referred earlier to two stages of industrial growth which may also be looked at from the point of view of the difference in the composition of capital in the two periods. As Hicks pointed out, the essential difference between modern factory industry and handicraft industry resides in the forms of capital. In pre-factory industry the principal form of capital was working or circulating capital mainly as payments for labour and raw materials. In this sense, the distinction between artisan and trade is not economically important.[26] When these workshops and putting out systems were gradually replaced by large scale organisation based on the further extension of division of labour known as the manufactory system, circulating capital still formed the major part of capital. This is the economic structure where all capital is circulating as presented in Smith-Ricardian Theories of Economic Growth. According to the classical theory, the dynamics of economic growth which stem from the link between each production period are simple.

Mendels has thus rightly concluded that "the earlier industrialising countries (Britain, France etc.) have begun their industrialisation through labour-using industrial techniques".[27] The whole extensive growth phase

[24]Paul Bairoch, op. cit., pp. 488–92. W. O. Henderson, op. cit., 1969, Chapter 2.
[25]E. J. Hobsbawm, op. cit., p. 39.
[26]J. R. Hicks, Theory of Economic History, Oxford, 1969, pp. 28–29.
[27]F. F. Mendels, op. cit., p. 261.

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and the early parts of the intensive growth phase of the industrial revolution was labour absorbing as revealed in the pattern of sectoral distribution of the labour force of the period. Hobsbawm called this intensive growth phase the second phase (1840–95) of industrial growth when there was a remarkable improvement in employment all round and a large scale transfer of labour from worse-to better paid jobs.[28] This phase is characterised by the rise of capital goods which provided a comparable stimulus to the employment of skilled labour in the vast expansion of engineering, the building of machines, ships and so on.[20]

The wage fund limits the producing in this system to one year and this fund is left from the previous period's net output. Obviously, under this system an increase in the supply of labour will in the course of time result in the operation of law of diminishing returns as was pointed out in the economic theories of the time. But Karl Marx was perhaps the first of the contemporary economists who pointed out that changes in the organic composition of capital together with technological change would obviate this tendency.

When we have developed fixed capital (i.e. factories, machinery and other producers goods that outlast the production period)—it is a result of the investment of a part of the production and also augments capital stock. The supply of capital at the current period results from past decisions whereas capital accumulation depends on the expected return from its whole life time. This fundamental change in economic structure and function in itself confirms the place of the factory system in defining the second phase of industrialisation.

India and most of these Third World countries had a developed and well diffused proto-technology in the pre-Western contact period of their history but this proto-technology did not evolve into modern industrial technology because of the lack of sufficient pressure or population on existing resources. Population growth rate was seldom above 0.2% per annum and most of these countries are well known for their green lush vegetation which supported the population at that level of density and its growth rate, with little effort. In other words, nature abundantly bestowed its gifts on people who had to exert only a little effort. Marx wrote: It is not true that the most fruitful soil is the most fitted for the growth of the capitalist mode of production. This mode is based on the dominion of man over nature. Where nature is too lavish, she keeps him in hand like a child in leading strings. She does not impose upon him any necessity to develop himself. It is not the tropics with their luxuriant vegetation, but the temperate zone, that is the mother country of capital. It is

[28]E. J. Hobsbawn, op. cit., p. 118.
[29]E. J. Hobsbawm, ibid., p. 117.

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not the mere fertility of the soil, but the differentiation of the soil, the variety of its natural products, the changes of the seasons which form the physical basis for the social division of labour, and which, by changes in the natural surroundings, spur man on to the multiplication of his wants, his capabilities, his means and modes of labour. It is the necessity of bringing a natural force under the control of society, of economising, of appropriating or subduing it on a large scale by the work of man's hand that first plays the decisive part in the history of industry.[30]

But then these countries came into contact with the Western capital and technology which resulted in the implantation of modern economic activities meant to satisfy the needs of the metropolis. Thus cash crops were introduced to serve industries of the West when these Third World countries had no modern industrial basis that might use them. And subsequently when these late comers began to follow a policy of rapid industrialisation with the lavish help of foreign technology, capital and skills, basic resources of the former countries like abundant labour, raw material (e.g. cotton, jute, coal, rubber etc.) have become redundant as a result of rapid technological growth in the West.[31] And rapid technological growth implies by definition gradual discarding of labour and labour intensive type of raw materials.

Estimates of the trends of French industrial development, according to Marjewski, show no take off period in the nineteenth century at all, for the growth of the French economy was gradual.[32] Acccording to a study by Deane and Coale, if we take the share of agriculture in relation to industry to total output as an indicator of the pace of industrialisation, agriculture in France was not surpassed by industry and crafts until approximately 1885—compared with the 1810s in England and 1890 in Germany.[33]

In a more recent work it is found that France was more advanced in pre-factory industrial growth than Britain in the 18th century but by the early 19th century, Britain was surely much ahead of France in industrial growth. Mendels comments: In International comparisons of growth rates, the problem is compounded by the fact that some countries continued in the nineteenth century to operate according to the old industrial

[30]K. Marx, Capital, 1st Edition, 1861, Vol. 1, pp. 563–89.

[31]P. Bairoch, Economic Development in the Third World Countries, Methuen, 1975, Chapter on Foreign Trade. Also see P. Maitra, Technology Transfer, Population Growth and the Development Gap in Bairoch and L. Layoyer (Eds.) Disparities in Economic Development, Macmillan, 1981.

[32]J. Marjewski, The Take-off in France in W. W. Rostow (Ed.) The Economics of Take-off into Self-Sustained Growth, 1963, p. 131.

[33]Phyllis Dean and W. A. Coale, British Economic Growth, 1688–1959, Cambridge University Press, 1967 (see also Hoffman, W., The Growth of Industrial Economics, Macmillan, 1958.

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structures much longer than others, particularly England.[34] The differences in population growth rates between these two countries may explain this difference in trend.

This also explains two opposite effects of technology transfers at two different stages, for example, technology transfer to countries of continental Europe, took place at the later stage of extensive growth and at the early phase of intensive growth of industrialisation, in or around the mid-19th century, when these countries had their own early manufacturing which had evolved from the artisanal workshops. But as the technology transfer to the Third World countries since the late 19th century was piecemeal when the second phase of industrial growth in the West was already underway and since the 1950s in particular a massive quantity has been transferred, it has failed to achieve the same effects and as a consequence underdevelopment has become a perpetual feature with these countries.

Phyllis Deane while writing about the Industrial Revolution in England observes, "It is difficult to conceive of a way of enlarging the natural resource endowments or of adding to the national capital which did not involve an increase in the labour supply to the sector affected".[35] This is particularly true at the early period of the industrial revolution. It would not be valid today. But her observation is particularly relevant to an understanding of the vital aspects of the industrial revolution. She continues: even where technical change in the industrial revolution was labour saving in its effects, the immense impetus that it gave to the expansion of invested capital promoted a considerable net increase in the demand for labour.[36]

The increment in the supply of labour was largely composed of infants, because in its early stages, the increasing population was largely due to the combined effects of a falling infantile death rate and a rising birth rate. Consequently until around 1821 the active labour force was growing a little more slowly than the total population. On the other hand, technological change that was taking place at that stage of the industrial revolution was simple—an extension of the one used in the household industries where children acted as labour, and therefore, this process of change in technology maintained the demand for labour. "Domestic industry found work for children almost as soon as they could crawl and the early textile factories were taking batches of pauper children from the age of five upwards".[37] Thus the burden of dependents so often created by a grow-

[34]F. F. Mendels, op. cit., p. 260.

[35]Phyllis Deane, The First Industrial Revolution, Cambridge Univ. Press, 1965, p. 136.

[36]Phyllis Deane, op. cit., p. 137.

[37]Phyllis Deane, op. cit., p. 137.

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ing population tended to fall less heavily on the British economy of that late 18th and early 19th centuries which in its turn helped further development of the economy by providing expanding demand.

This expanding domestic demand coupled with increasing foreign markets of British products led to the increased demand for labour in excess of its supply which necessitated rapid technological improvement through using mechanical power to reduce the wage cost of production. This change known as intensive growth phase of industrialisation, was considered more important when the late industrialisers e.g. U.S.A., France, Germany etc. became strong rivals in the late 19th century. This technological change obviously would require more skilled labour and a higher level of people. Thus Factory Acts, and factory inspectors and national schools began to get the children out of the factories, although child labour continued in some form or another for nearly a century after the Industrial Revolution began. In 1857 child labour was banned by legislation and later a policy of compulsory education was introduced by the Government. All these had effects on the growth of population as children, hitherto considered as assets, became expensive.

In Britain, the mid 1880s saw a marked rise in industrial activity which coincided with agricultural survival and the first phase of railway construction dried up a large part of the conspicuous rural labour surplus. The situation was summed up by the 1836 Report of the Poor Law Commission. The price of provisions is still reasonable, the demand for labour in manufacturing districts unprecedented; railroads are being constructed in every part of England; the iron founders are all seeking additional hands to keep pace with their enormous orders and there is increased desire on the part of the weakened portion of the community to assist their poor neighbours to seek their fortunes in the colonies.[38]

Deane observes while writing about the growing population at the time of the rise of the Industrial Revolution, that there is no doubt that as more people abandoned the kind of domestic industry which was a subsidiary activity of agriculturists and went into full-time manufacturing in factory and workshop, the effective input of labour per member of the labour force rose. This happened not only in manufacturing industry but also in farming. As yields per acre rose and as animal husbandry became more sophisticated, the average agricultural labourer of the late 18th century found himself spending more hours of each day and more days of each year in active gainful employment than his predecessors had done.[39]

As mentioned earlier, the complex process of economic change known

[38]F. J. T. Colline, op. cit., p. 69.
[39]Phyllis Deane, op. cit., 1965, p. 138.

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as the Industrial Revolution was a process which called for a massive increase in the input of labour, especially at the initial stage of technological change and itself provided part of the occasion for that increase. The factories gave full-time gainful employment not only to men but also to women and children, groups which had rarely enjoyed more than seasonal or part-time work for pay in the domestic industry era.[40]

It is however to be noted here that during the first stage of the industrial revolution (i.e. approximately 1780–1830) despite the increase in demand for labour, daily wage rates showed little evidence of marked or sustained improvement which could be advanced as a support to the claim that the elastic labour supply constituted one of the main reasons for the enormous and unprecedented expansion of the British economy over the period. Hicks wrote: "the whole Industrial Revolution of the last 200 years has been nothing else but a vast secular boom, largely induced by the unparalleled rise in population.[41]

At the first stage of the industrial revolution the labour force was largely unskilled and was therefore relatively homogeneous. One reason, according to Deane, why the working men of the 1830s and 1840s failed to exploit their sheer weight of numbers to turn the scale of the wage bargain in their favour, when the demand for labour was rising in the wake of dynamic economic expansion, was that they were too ill-educated.[42]

Another point to note was that even by 1850 the typical employer was not a large scale capitalist and a factory operative was not yet a typical employee. This development evolved with the intensive growth stage of the industrial revolution in the second half of the 19th century. However, towards the end of the 19th century, the labour supply began to expand less rapidly and also became less homogeneous with the growth of percision trades.

A brief reference to Japanese process of development is in order here. Japanese agriculture was over-populated for a long time and a dualistic structure evolved in Japan which lasted till 1950s. However, Japan followed a dual production function—on the one hand a capital intensive production process was used suited to the imported technology, and on the other, Japan used traditionally developed technology for her labour surplus agricultural sector. She followed neutrality to scale approach in an over-populated small scale agriculture that emerged as a consequence of land reforms and population growth after Meiji Restoration. She introduced intensive agriculture in a framework of small scale agriculture to make more productive use of a growing labour force in the rural areas as the industrialising sector was not capable of creating enough employ-

[40]Phyllis Deane, Ibid., p. 139.
[41]J. T. Hicks, Value and Capital, 1946, London, p. 302.
[42]Phyllis Deane, op. cit., p. 151.

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ment opportunities. In doing this, Meiji Japan vigorously used her traditionally developed technology which has not been adequately used during the Tokugawa period because of lack of internal markets. With the opening up of the country, the prospect of using industrial inputs, together with the growth of urban population with industrialisation, the need to increase the supply of agricultural output became extremely important.

The Tokugawa technology used in Meiji agriculture included: (a) the use of organic fertiliser (oil cake and dried sardines etc.) which were used by rich peasants solely for the cultivation of commercial crops like silk, indigo, cotton and tobacco; (b) foot pedalled wheels for irrigation; (c) the introduction of animal husbandry; (d) improved manually operated sickles and plough, hand rotary weeder, stamping rotary thresher.[43]

Rural industries (i.e. proto-technology) were used to the full to meet the needs of growing rural population. This may be considered as one of the reasons for the survival of traditional consumption forming an overwhelming proportion of total consumption until the 1950s. Another important point that should be mentioned here is that although Japanese industrialisation was based on imported technology from the West, this technology was labour-using relative to the present day technology of the West and therefore, it was possible for Japanese entrepreneurs to give sub-contracts to small scale part-time manufacturers and peasants to make parts and accessories for the large scale urban industries. This helped them to use cheaper labour and thus reduce the cost of production and make their products competitive internationally. In summary Japan, like many other Europen countries, introduced imported industrialisation because of the relatively low rate of growth of population, but here, the Japanese State took the leadership to initiate imported industrialisation suited to Japan's factor endowments and international markets. In Japan a labour surplus, and backward agriculture and service sectors existed side by side with a highly modernised and dynamic industrial sector until the 1950s.

In the case of developing countries, many had highly developed and diffused proto-industry, large urban centres, developing commercial sectors and developed agricultural technology relative to European agriculture of the comparable period.[44] The demographic condition for the industrial

[43]M. Miyamoto, et. al. Economic Development in Pre-Industrial Japan, 1859–1854, Journal of Economic History, Vol. 25, 1965, pp. 542–543.

[44]I. Habib, The Agrarian System of Moghul India, Asia Publishing, London, 1963, p. 76.

U. Dharampal, Indian Science and Technology in the Eighteenth Century, Impex India, 1971.

B. H. Slicher van Bath, The Agrarian History of Western Europe, A.D. 500–1850, Arnold, 1963, pp. 239–41,

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revolution i.e. population growth rate (0.1–0.2) was not enough to stimulate indigenous technological progress leading to the industrial revolution. Imported modern activities including modern industrial activities were introduced by European colonial powers to serve the interest of their own economy which had very little to do with the needs of the economy of these countries. Today population growth rate is unprecedented in the history of mankind varying between 2.5 and 3 per cent but industrial growth, based on highly sophisticated technology imported from labour short economies cannot absorb labour in productive activities. Yet these vast human resources could have been used through organisational change to generate and develop indigenous technology suitable to the present factor endowment situation. This is the basic lesson that these countries could learn from the historical experience of the Industrial Revolution. It is difficult to ignore the fact that class consciousness i.e. the consciousness of the rising capitalist class determined the nature of technological change (i.e. the production function) and the objective of production (profit) since the industrial revolution. But the capitalist class consciousness in the Third World countries dictated the policy of technology transfer which is acting against the interest of the working population. Thus the organised consciousness of the working population would be the main ingredient in bringing about the advancement of traditional technology suitable to the present day need and the factor endowment conditions. For further discussion on this point see author's "Marx—Population and Technology" a paper presented at the World Congress of Social Economics, State University of California (Fresno), 1983.

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SCOPE FOR PRIVATISATION IN INDIA THROUGH DIVESTITURE AND DENATIONALISATION*

DR. (MRS.) L. A. REDE
Professor of Economics
Department of Economics, Faculty of Arts
The M. S. University, Baroda

1. Introduction

The process of privatisation which has embraced governments of all ideologies, has brought about a global transformation with a breath taking speed and breadth. Since its initiation in early eighties, around fifty countries in the world have adopted privatisation in one form or the other. India, too, has been following economic policy changes in this direction since midseventies, though its policy of "Liberalisation" caught real momentum since 1985.

Since India is a glaring example of Mixed Economy, one can observe the co-existence of great variety of forms of organisations and techniques of production being simultaneously used in the operation of her economic system. India also provides an example of amazing medley of restrictions and regulations, of undirected and uncontrolled private sector economy. The Government of India, in 1954, resorted to the philosophy of "Socialistic Pattern of Society". This implied that social gain, and not private profits, would be the determinant of planned economic development of the country. Hence, major decisions regarding production, consumption, investment, etc. made by various agencies must be in accordance with social purpose. Obviously, Industrial Policy Packages adopted after independence were governed by these principles and directions.

Industrial Policy Resolutions (IPRs) of 1948 and 1956 provide the basic frame for Industrial Policies in India. The state has been assigned a progressively dominant role in speedy industrialization of the country. The industries belonging to Schedule A of Industries Act (1951) were to be the exclusive monopoly of the State (There were 17 such Industries). In addition to this, 12 industries, belonging to Schedule B, were to be progressively State owned. The remaining industries, though left to private sector, were to be regulated and guided by the State. In short, industries of basic and strategic importance, those requiring heavy investment, and also, those which were in the nature of public utility services were to remain under the control of the public sector. Thus, the State, via these

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IPRs had assumed direct and increasing responsibility of future development of industries in India.

However, a U-turn in economic thought and events started being expressed in India from mid-seventies through the recommendations of various committees. Though halty and slow, a move in the direction of greater economic freedom and marketisation was set in. With the leadership of Mr. Rajiv Gandhi this process of liberalisation got tremendous momentum, and with this, a debate on "Privatisation" opened up in the country.

The tremendous political, economic and social success which the Thatcher government reaped from the policy of privatisation in U.K. mesmerised the entire world.

Moreover the world aid agencies like Agency for International Development (AID, U.S.A.), and some International Lending Institutions like IMF and World Bank also started strongly emphasizing and recommending the adoption of process of privatisation by less developed countries (LDCs) of the world, for the attainment of speedy growth. Obviously, India, with earlier initiation of thinking of more economic freedom also came under the spell of the wave of privatisation. This is reflected in the New Economic Policies followed (New Economic Order, NEO) by India since 1985, i.e. Liberalisation Policy.

Though there has been no official resolution or statement expressing explicitly what is intended to achieve, and how, liberalisation refers to a set of certain policy changes, procedures, modus operandi and rationale with particular reference to fiscal, monetary, trade and industrial policies. Liberalisation here is considered in the industrial field only and includes deregulation, delicensing, broadbanding and expansion of production capacity of industry, etc. This paper attempts to examine the following issues.

What is meant by privatisation and liberalisation? What factors have led to the process of privatisation all over the world? Is the nature of the process of privatisation same in all the types of economic systems or does it differ? Why has there been an absence of divestiture of Public Sector enterprises in India? What is the scope for privatisation via divestiture and denationalisation in India? Does it fit into our economic and socio-political philosophy?

This paper makes an attempt to answer some of these queries and examines the related issues.

2. Concepts of Privatisation

Before we probe into various issues mentioned above, it is necessary to define the recently coined concept of privatisation. Though a number of definitions (ranging upto 15) have been given to define this concept, the global concept of privatisation boils down to the terms "Divestiture"

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and "Denationalisation". For the sake of clarity, the paper defines "Privatisation" in the following five broad ways:

(a) *Divestiture*: This implies the sale of whole of its holding of equity shares by the State of private shareholders, i.e., private individuals, industrial houses, financial or other institutions, etc. A partial divestiture, whether of minority shares or majority shares, may lead to change of ownership, but may or may not result in change of control and management.

(b) *Denationalisation*: This involves complete change of ownership of an enterprise from the State to the private sector. It therefore involves conversion of public sector enterprise (State Owned Enterprise, i.e., SOE) into a private sector one and involves a total change of ownership and management, both.

(c) *Expansion of Private Sector*: Any process whereby the private sector is assigned greater role in economic activities of the country is referred to as "Expansion of Private Sector". It therefore involves freezing or slowing down of production of goods and services in public sector. Fiscal, monetary and other non-discretionary measures are taken for liberalising or deregulating the private sector.

(d) *Liberalisation*: It is reflected through fewer controls and regulations in economic fields by the State. It involves slowing of or stopping new controls and regulations. Delicensing of industries for expansion, diversification, etc., broad-banding of industrial group for allowing diversification, re-endorsement of capacities and production according to economies of scale, abandoning or postponing the proposals to start new SOE's, etc. as regards the industrial sector. Liberalisation in fields of fiscal, monetary and foreign trade policies is followed via lowering of tax rates, raising the exemption limit, changing rates of interest etc., and reducing tariffs and custom duties, etc. respectively.

(e) *Transfer of Management and Control of SOE's to Private Sector Individuals or Agencies*: Through this measure, persons with experience in management of private sector companies are associated with others on the board of directors of public sector companies, or at lower levels. However, mere transfer of management and control, without any share of profits to these private individuals or agencies would not lead to privatisation in real sense, because such managers would then be mere employees of the government, if not bureaucrats.

In short, the term "Privatisation" has been defined and adopted in different ways by various countries. India has resorted to "Liberalisation, and Expansion of Private Sector" (definitions c, d given above). As regards Transfer of Management to private sector, it was prevalent in India even prior to 1985. However, denationalisation and divestiture, the two major internationally popular and adopted concepts of privatisation

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have not been followed by India.[1] This has primarily been the reason why an attempt has been made here to examine the case for privatisation via divestiture and denationalisation in India. This leads to a major inquiry into the causes of the process of privatisation. Hence, for the remaining part of the paper privatisation would mean divestiture and denationalisation.

III. Why Privatisation?

Various factors apart from growth promotion have led to global movement of privatisation. Factors contributing significantly to this worldwide process of change have been discussed below:

(a) *Privatisation as a Specific Medicine to Cure Specific Illness Ailment*

Dr. N. R. Pendse,[2] the economic adviser to Tata Industries, recommends privatisation as a medicine to cure specific economic ills that prevail in an economy, especially in the developing ones. Broadly speaking, a country may be suffering from the following economic ills:

(1) *Adverse Budgetary Trends*: These include the following:

(i) Continuous overall increase in budgetary deficits of a country resulting in increasing inflationary pressures and slowing down of economic growth.

(ii) High deficits on current accounts showing excess of expenditure over the receipts on current account. This reflects a serious issue, that the country's current expenditure is to be met partially through receipts on capital account, thus eating away the funds raised for capital formation.

(iii) Prevalence of capital surplus budgets which denotes that increased borrowing is resorted to for meeting the day-to-day expenses of the government.

Unfortunately for India, all these budgetary ills are in existence, and hence need to be cured as early as possible.

(2) *Dismal Financial Performance of SOE's*: Since 1960, there had been a big expansion of SOE's all over the world, especially in the developing countries. SOE's have not only grown in absolute number from 5 in 1st Plan with total investment of Rs. 29 crores to 226 in 1987 with investment of Rs. 61603 crores,[3] but also have tremendously grown in size. These were expected to lead the LDCs in the process of

[1]Denationalisation is completely absent while there is only one case of divestiture of a company named Allwyn Nissan in Andhra Pradesh. There is a hot debate going on regarding divesting Scooters India Limited, though it has not yet materialised.

[2]Pendse, N.R. (17), *Privatisation and Economic Growth*, Forum of Free Enterprises, Bombay, June 1985.

[3]Srinivasan, A. V. (22), "Public Enterprise Evaluation and Molls", in *Financial Express*, August 22, 1988.

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industrialisation and modernisation. Through generation of surpluses, SOE's were also expected to take the economy to self-sufficiency and self-reliance, thereby speeding up the growth process for LDC's. However, in reality, SOE's failed in performing the role assigned to them and gradually became a drain on national budgets; therefore, Elliot Berg, an Adviser to World Bank, AID, etc., calls them as "Parastatals".[4]

As regards the performance of SOE's in India, the situation is no different. In 1983–84, around Rs. 29896 crores were blocked in SOE's in India, on which 0.8% rate of return was earned. As against this, the medium and large public limited companies in private sector earned over 6% rate of return on the capital employed. Many of the SOE's in India have been facing continuous losses and if the subsidies provided to them are also included, the losses of SOE's would run in thousands of rupees. Obviously, the financial performance of SOE's in India has become a serious cause of concern and the ill needs to be immediately remedied. The cure, it is urged, lies in divestiture and denationalisation of SOE's.

(3) *Continuous Increases in Non-Developmental and Non-Plan Expenditure Incurred by Government*: This type of trend in the government expenditure raises a serious issue as it leads to cut in plan targets, thereby slowing down the process of growth. It also reflects an increase in wasteful consumption expenditure by government which not only needs to be arrested, but reversed. India, too, is facing this economic illness and there have been various suggestions for cut in government expenditure of this type.

(4) *Increase in Incremental Capital Output Ratio*: This has been a common feature of LDC's. India experienced incremental capital-output ratio of 3.53 in First Plan which rose to 6.00 in the Sixth Plan. This implies that productivity of capital, at margin, has been declining in India. An emphasis on modernisation and industrialisation via more capital intensive techniques of production, under such conditions, would retard growth.

However, it is very interesting to note that these economic illnesses are the outcome of India's attempts towards simultaneous achievement of various conflicting goals like growth, equity, stability, self-reliance, employment creation, industrialisation, social justice, etc.

(b) *Privatisation for Equity*

Privatisation has been advocated on the grounds of equity in ownership of productive assets. Divestiture leads to wider share ownership of assets among individuals. In U.K., privatisation of British Telecom has resulted in world's largest single share floatation valued at Rs. 5000 crores. This has resulted into making 95% of its own employees (Around 2 lakhs

[4]Berg, Elliot (5), "Privatisation: Developing a Pragmatic Approach", *Financial Express*, July, 8, 1987.

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22 thousand individuals) the owners of shares of the company.[5]

(c) *Increase in Efficiency and Productivity*

Privatisation is welcomed, because it introduces an element of competition among firms, and leads to improvement in efficiency and productivity. Behind this argument lies the dismal financial performance of SOE's. A number of factors are responsible for this state of affairs of SOE's. Section IV given below contains a detailed discussion on this issue. Privatisation, thus, is suggested as a remedy for loss making SOE's.

(d) *Application of the Theory of Comparative Cost Advantage*

It is argued by some experts that the theory of comparative cost advantage is also applicable to the management of enterprises and the administration of government. It is argued that trained personnel like I.A.S. officers, etc., should be entrusted with the administration of government, because they are trained and specialised in this field. On the other hand, management of SOE's should be left to private sector, so that these are managed by the trained managers. This would give us more efficient government as well as more efficient enterprises. As against this, it may be counter-argued that privatisation of SOE's may not be the only solution to their poor fiscal performance. The government can also hire trained managers in order to run them efficiently. However, as noted earlier, hired managers would still be the employees of the government with no financial accountability and no risk of being licked out if they performed bad. Thus, the process of rewarding the efficient and punishing the inefficient through competition enables reaping of advantages of specialisation in private sector industries, and hence needs to be extended to SOEs.

(e) *Mobilisation of Resources*

Plea for privatisation further rests on the ground that it enables the government to find out new ways of mobilising resources. Privatisation through sale of equity shares of SOEs (i.e., divestiture) provides cash income to the State. It may be noted that U.K. could raise nearly $ 21 billion[6] through divesting various SOEs till the end of 1987. It may, however, be noted that U.K. had to continuously underprise the shares on stock market which adversely affected its cash generation objective to some extend.

Secondly, divestiture would reduce the flow of funds which is pumped into the SOE's, year after year, in the form of subsidies for uneconomic

[5]Pendse, D. R. (17), op. cit.

[6]Samuel, Paul (16), "Privatisation: A Review of International Experience", *Economic and Political Weekly*, Feb. 6, 1988, No. 6, pp. 273–276.

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activities. Moreover, SOE's resources position is adversely affected when they have to depend upon government for financing their borrowing programmes, especially when government budgets are under severe strain due to the problem of resources crunch. When Federal support to State and local governments is reduced drastically, divestiture shows a way out. Privatisation via contracting out of urban services like garbage collection, waste water/sewage treatment, public transportation, fire transportation, etc., has been the form of privatisation in U.S.A. and U.K. India, too, has taken steps in this direction and a number of services like catering or wagon leasing in railways, transportation, some defense items, etc. have been contracted out to private sector. Finally, privatisation would be a last resort of raising revenue, when all other sources of revenue dry up.

(f) *For Reducing Drain on Government Budgets on account of SOEs*

Many countries of the world are under severe financial problem due to the soaring government expenditures. A number of factors are responsible for growth of government expenditure. Most important among these are (i) subsidies to SOEs for some social discharges or some other uneconomic activities, (ii) budgetary support to chronically loss-making SOEs for maintaining their liquidity. This results in increased inflationary pressures, thereby slowing down the growth of the economy. Privatisation would reduce the need for budgetary support on these two accounts and would help reduce overall deficits in budgets.

(g) *Divestiture of Profitable SOEs is also Beneficial*

Divestiture of SOEs is advocated for profit making SOEs also. It is argued that, when divested, the profitable SOEs would be still better managed, as these would be opened up to competition. This would, in turn, improve their efficiency which would lead to increase in productivity and profitability. Higher profitability would cause growth of both, the industry and the whole economy. Hence, profitable SOEs be also privatised. In addition to this, this would also raise money for government via sale of equity.

(h) *Divestiture is Profitable even if it is Partial*

It is said that even if an SOE is divested partially, it would benefit the government in the following ways. That part of equity which is sold to the private sector raises money for the government. Moreover, with wider ownership of the divested SOE, and a change in its management, there is a possibility for the enterprise to earn higher rate of return because of improved efficiency and productivity. Obviously, the government would be benefited, because on the remaining equity it can earn higher rate of

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return also.

(i) *Privatisation on the grounds of Economic Pragmatism*

The main proponents of privatisation, viz., U.K. and U.S.A., favour privatisation on practical grounds. Privatisation, it is said, is not "laissez-faire". It is to be adopted, because some countries have political commitments in favour of free competition. Hence, these countries are politically pressurised to grant increased economic freedom, leading to privatisation.

(j) *Privatisation on ground of Technological and Financial Gains*

Finally, privatisation is very strongly supported on the grounds that it involves technological and financial gains. Lots of government funds are locked up in SOE's producing commodities which are also produced by private sector enterprises. If these SOE's are divested, the funds released from them can be utilised in a better way and invested in those areas wherein the private sector cannot and does not enter. Recently, on the technological issue, there has occurred one single case of divestiture in India. "Allwyn Nissan", a company producing commercial vehicles, has been divested by the Andhra Pradesh Government and has been sold to Mahindras. The following arguments are put up in this deal.

The A.P. Government had invested its funds in Allwyn Nissan, with Allwyn as a competent holding company with excellent track record in competitive field. Automobiles, an attractive un-reserved product, were produced and the A.P. Government, it is argued, never interfered in the working of the company. In spite of this, the company has been divested on technological and financial grounds as discussed below.

The company was producing the automobiles with limited market. Due to liberalisation of licensing of light commercial vehicles, there was increase in competition in automobile market. Moreover Japanese technology was used in the production process. With continuous rise in the value of yen in international market, this implied continuous increase in cost of Japanese components used in the products. The company therefore was facing a grave technological and financial crisis. There were two solutions to this problem. Firstly, the company could resort to indigenation of components on large scale, which was uneconomic as it involved huge amounts of funds. Alternatively, the company could build up better marketing strategy and marketing network. This involved long time and, with yen prices still rising, would imply further rise in cost of production. As against these, there was a suggestion for selling of government owned equity to private sector, which can take care of these issues. This would also release the government's huge locked up funds in the

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enterprise. Finally, the company was divested and Mahindras bought the shares held by the A.P. Government.[7]

This was found to be the best solution as Mahindras have both, the marketing strategy and network, and also the capacity to produce indigenous components for vehicles with Japanese technology. This has resulted in releasing the government funds locked up in Allwyn Nissan, which would, with multiplier effect, lead to structural transformation when invested in more useful areas. Thus, privatisation is advocated here on technological and financial issues.

Having discussed above the case for privatisation, it is deduced that divestiture of SOEs has been the main issue under the discussion. Moreover, majority of arguments seem to be attacking the SOEs on the grounds of inefficiency. Hence, the paper briefly discusses below the major causes of failure of SOEs.

IV. Causes of Failure of SOEs

As explained above, India experienced a tremendous growth in the number and size of SOEs since 1956. Majority of these enterprises have turned into chronically loss-making units. Privatisation of these units has been, therefore, getting strong ground in the country. Following are the major factors responsible for the failure of SOEs, especially in India:

(i) SOEs are run by bureaucrats who are trained in administering the government, not in managing an enterprise. Hence, inefficient management results into losses.

(ii) Since SOEs are based on the bureaucratic structure, there are delays in decision-making, implementation and other levels due to red-tapism. This results into cost overruns and causes higher losses.

(iii) Thirdly, the SOEs are not only the commercial units but also have to carry other social and non-economic responsibilities. It is sometimes said that SOEs in India are more like "Employment Agencies". Obviously, financial performance alone is not the objective to be fulfilled by these and hence profitability, at many times, is sacrificed to meet other objectives.

(iv) Fourthly, SOEs enjoy higher autonomy in financial matters. The loans raised by SOEs are not put to strict financial scrutiny. Obviously, they are unaccountable to public for financial losses incurred. This happens due to adoption of *Soft Budget Constraint*, which allows the firm to incur expenditure in case of revenue raised through the sales of products in the market.

(v) Fifthly, SOEs are the creation of the State. Hence, the State adopts

[7]Reddy, V. Y. (19), "Privatisation: Where are the Gains?", *Financial Express*, July 19, 1988.

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paternalistic attitude towards these, and protects them as much as possible. This results in carelessness and negligence by the management of SOE's, which makes them inefficient.

(vi) Since prospects of managers of SOEs depend on their superiors, they are more busy with buttering and pleasing their bosses rather than insisting on the efficiency aspects of the enterprises. Since managers are not fully responsible for the working of SOEs, efficiency is neglected.

(vii) Finally, there is a lack of management ethos in SOEs. This is the result of lack of moral factor influencing the actions of the managers of SOEs. Due to cultural differences in running of SOEs, these are generally over-administered and less managed, resulting thereby in increased inefficiency, while private sector enterprises are more efficient as these are more dynamically and matter-of-factly run.

Having examined the causes of failure of SOEs, it becomes obvious that there is a strong case in favour of divesting them in India. Almost all the countries of the world which have followed the process of privatisation have resorted to divestiture of SOEs. This has been observed in case of capitalist developed countries like U.K., France, Italy, West Germany, Sweden, Spain, etc., as well as in developing countries like Bangladesh, Pakistan, Thailand, Malaysia, South Korea, Brazil, Mexico, Peru, Chile, Argentina, etc. A communist country, China, also has taken steps in this direction. Though the privatisation process took place at a relatively fast pace in developed countries than in the developing ones (e.g., out of 3975 SOEs in 28 LDCs, only 35 SOEs, i.e. 2% were liquidated or divested by 1987).[8] In India, however, only one company, Allwyn Nissan, with very small ownership of shares by A.P. government, was divested in 1987–88. Since private sector groups already owned the majority shares in this company this case of divestiture can be treated as a negligible one. A proposal for divesting Scooters India Limited, a government owned enterprise in India, is still under consideration, and has been hotly debated.

In short, divestiture played no role in the process of privatisation or liberalisation in India. This obviously raises a query about what factors were responsible for less divestiture in India. Following section makes an attempt to answer this question.

V. Causes of Less Divestiture in India

(a) *New Phenomenon*: Privatisation is a new phenomenon. Hence, in a developing country like India, adoption of divestiture would obviously be less in its initial process.

[8]Samuel Paul (16), "Privatisation: A Review of International Experience", *EPW*, Vol. XXIII, No. 6, Feb. 6, 1988, pp. 273–276.

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(b) *Motivation Factor*: Motivation behind divestiture in India is that of selling of loss-making or sick SOEs. However, in developed countries divestiture would mean re-invigorating or strengthening a poorly run SOE of a sufficiently large size, which would lead to dynamic management and widespread ownership. In India, divestiture may not leave any scope for making the divested SOE an economically viable unit.

(c) *Non-Availability of Modality of Divestiture*: The basic question that revolves around divesting SOEs in India is "Who will buy the shares of a divested SOE?" Unless the SOEs are economically viable, it is difficult to get buyers for the shares of SOEs. Since majority of SOEs in India are chronically loss-making units (sick units), getting buyers for the shares of these SOEs is a big hurdle in the process of divestiture.

Moreover, with very low per capita income, grave incidence of poverty and tremendous inequalities in distribution of income and wealth, there would be very few buyers for shares of even profit-making SOEs. Divestiture therefore would involve purchase of equity of SOEs by only a few big business houses like Mahindras (in case of Allwyn Nissan), Bajaj (considered for Scooters India Ltd.), Tatas, Birlas, etc. This would aggravate the inequalities in income distribution, and result in increase in concentration of economic power and wealth in the hands of a few.

Contrary to this, the key question in developed countries revolves around financial matters like finding out the right merchant or investment banker to implement the decision of divestiture, so that questions like pricing of shares etc. can be resolved satisfactorily. Due to high per capita incomes, existence of competent enterpreneurs and competitive markets, developed countries do not have to bother for the buyers of the shares of divested SOEs.

India faces another problem regarding buyers for the shares of divested SOEs, because there are various restrictions or bans on such purchases by the foreigners. All these factors explain why India experienced negligible cases of divestiture.

(d) *Political and Economic Environment of India*: India, a mixed economy, has resorted to planned economic development with adoption of "Socialistic Pattern of Society". State intervention in economic activities has therefore been a logical corollary of such planning. Public investment is a major policy instrument for such intervention. Divestiture of SOEs on large scale, it is feared, would imply abandonment of this form of State intervention. Hence, the government has to be very cautions regarding this process.

It may, however, he argued that privatisation in this form does not mean abandoning the philosophy of mixed economy. The country may have a change in the degree of State ownership and its share in economic activities, without giving up its philosophy. However, it will be diffi-

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cult for the proponents of mixed economy to digest this idea; hence, an opposition by politicians, trade unions, etc.

(e) *Weak Existing Conditions for a Forceful Market Mechanism*: Divestiture requires healthy, competitive markets for goods and factors of production, easy approach to international markets, developed capital markets, and non-existence of regulations and controls. The existing conditions under which the industries in India are operating are contrary to this requirement, because these work under restricted markets, weak competition in private sector, undeveloped capital market, restricted legal structure, less approach to world markets due to policy of protection, etc. To these are added the problems like subsidised credit, controlled prices-wages-production-distribution etc., and dual markets. Hence, without preparing proper conditions for divestiture, it is useless to go in this direction.

(f) *Resistance to Privatisation by Other Interest Groups*: The policy of privatisation has been opposed by various groups of people. Politicians, bureaucrats, etc. oppose it because their power and patronage is threatened. Trade Unions are worried for worsening of working conditions for workers and for fear of unemployment. Academicians and intellectuals criticize it because it will lead to monopoly and concentration of economic power in the hands of few big business houses and will adversely affect the income distribution in the country. Hence, divestiture is not welcomed by many interest groups in the country.

(g) *Lack of Ready Framework for Complex and Huge Process of Privatisation in India*: The process of privatisation is characterised by its complexity and hugeness. It involves detailed analysis of all the existing SOEs in India, proper valuation of shares of these SOEs, provision for expertise on technical and administration issues, solutions to over staffing of SOEs, passing of liabilities and loans of these SOEs, etc. In short, the issues of implementation of the privatisation programme are very complex and huge, and require longer period, thought and various exercises before its adoption. Hence India has not been able to speed up in this process.

VI. Prospects for Divestiture in India

It has been pointed out earlier that very little efforts have been made in the direction of divesting SOEs in India. On the basis of the following reasoning we see very little scope for divestiture in India.

Since there is an absence of factors like competition, developed capital markets, free access to international markets, etc. which form a precondition of the success of divestiture, there is little hope for achieving success via divestiture in the near future.

Secondly, divestiture on a big scale is likely to generate internal politi-

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cal instability, because it would imply increased monopoly powers and concentration of economic power in the hands of a few big business houses, who are the only potential buyers of government shares in the country. This may also result in increased unemployment and strained labour relations with strikes, lock-outs, etc., as the consequence. Socio-economic conditions in the country may thereby threaten political stability.

Thirdly, privatisation per se does not mean change in market structure. Mere transfer of ownership and management would not make the economy competitive. Changing the market structure of an economy would require creation of competition, removal of monopolies and entry barriers, developing capital markets, etc. which would take fairly long period of time. Hence we see no bright chances for speeding up privatisation process in India.

Fourthly, the adoption of the "Socialistic Pattern of Society" by the Indian Government requires equitable distribution of income, consumption, assets, commodities and scarce resources between various groups of consumers and producers. Subsidisation of irrigated water, fertilisers, electricity, etc. and that of wages, interest, etc. need to be maintained along with subsidised food, clothing, shelter, etc. so that the objectives of removal of poverty and equity are attained. Similarly, existence of controls over prices, production, consumption, distribution, resources, etc. is essential for equity purposes. A government that is avowed to this philosophy must keep on bearing these burdens even if these become a draft on government budget. Obviously, hasty steps for divestiture are likely to be heavily criticised, and strongly opposed by the proponents of this philosophy; hence, there seems less scope for it in India.

Finally, privatisation of sick units may receive a hearty welcome in the country by majority people, because these are, in the real sense, a big drain on government budgets and the real resources of the country. Moreover, there is hardly any possibility of making these loss-making units economically viable. If these could be sold to the private sector, lots of government funds which are locked up in them can be released and be used for better purposes. Hence, policy of disinvestment in such chronically loss-making units, though may be very strongly advocated, its success is still doubted. This is so because there would be no buyers for purchasing the shares of these SOEs. Obviously, privatisation of such units can be achieved only by providing some incentives to buyers of equity shares in the form of low prices of shares, reduced wage rates, retrenchment, voluntary retirement schemes, etc., so that the incentives overweigh the losses. This would, however, defeat the motive of mobilising resources by the government, as shares will fetch low prices. In spite of such policy if divesting the SOE is not possible on account of absence

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of buyers, the best way out would be to examine such cases in detail and to frame a proper package of remedial measures to rehabilitate such SOE's, rather than adopting privatisation and facing a severe failure in the process.

In sum, it is felt that the prevalent socio-economic and political philosophies and conditions in India leave negligible space for privatisation via divestiture of SOE's. Obviously, the possibilities for "denationalisation" or "re-privatisation" can be said to be almost nil.

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EMPLOYMENT MULTIPLIER EFFECTS OF MODERNISATION AND CAPACITY EXPANSION OF THE PUBLIC SECTOR STEEL PLANTS: A CASE STUDY OF BHILAI STEEL PLANT (BSP)*

DR. K. K. SAXENA and DR. BINAYAK RATH

Department of Humanities and Social Sciences
Indian Institute of Technology
Kanpur–208 016 (U.P.)

1. Introduction

Steel is one of the core sector industries of a nation's economy. It being one of the important ingredients of the industrial, agricultural and infrastructural sectors of an economy, its production plays a vital role in the economic development of a country. In countries with a growing economy characterised by expanding industrial, agricultural, infrastructural and urban development programmes, the relative steel intensity continues to increase over time owing to the well established fact that there is a positive correlation between the steel production and economic growth. In its turn, the steel production not only adds to the national income of the country but also provides substantial employment opportunities to the skilled and unskilled labourers, provides opportunities for regional re-distribution, and further ensures self-sufficiency. In view of its significant contributions in the labour market any proposition of expansion of the steel production implies creation of additional employment opportunities directly and indirectly.

Recognizing the importance of steel for our economic development the Government of India has been emphasizing on production of steel during the Five Year Plans. The industrial policies announced from time to time and, more particularly, the policy resolution of 1956 had accorded top priority to steel production in the public sector. A decision was taken to set up three integrated steel plants (ISPs) in the public sector during the Second Five Year Plan. One was located at Rourkela in Orissa, the other at Bhilai in Madhya Pradesh and the third one at Duragapur in West Bengal, each with an initial capacity to produce one million tonnes of steel annually. In the subsequent years in addition to the capacity expansion of these three units, one more public sector Steel Plant, with an annual initial capacity of 2.5 million tonnes of steel was set up at Bokaro

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in Bihar during the Third Five Year Plan. Furthermore, in 1972 the Indian Iron and Steel Company (IISCO, Burnpur), earlier in the private sector, was taken over by the government and was handed over to the SAIL for management. Thus, the public sector steel production has gone up significantly, i.e. from 0.061 million tonnes in 1959–60 to 5.78 million tonnes in 1986–87, under the umbrella of erstwhile Hindustan Steel Limited (HSL) and presently under the Steel Authority of India Limited (SAIL). And in order to attain this level of production the Government has invested about Rs. 15,000 crores in the public sector steel industry since independence.

Though the various units of SAIL have contributed significantly to the steel production in the country, still there is a lag between the supply and demand of steel due to low capacity utilisation. The quality of steel has also remained poor. Besides, the units too are facing acute problem of rise in costs due to higher price of raw materials/inputs and energy. Moreover, in view of Government's emphasis on improving the performances of public sector units and in view of the Five Year Plan's strategy of higher production and productivity by application of Science and Technology, the SAIL has evolved corporate strategy[1] of increasing its production as well as reducing the costs through a blend of modernization and capcity expansion schemes in the existing units and creation of new capacities. Adhering to the employment generation goals of the Five Year Plan, the SAIL's plan has also envisaged to achieve an optimal utilisation of manpower. Even though the SAIL's corporate plan has envisaged limited employment opportunities directly, it is generally argued that the indirect and secondary employment opportunities would be very significant through its multiplier effects. But these indirect and secondary impacts are often expressed in qualitative terms. Hence there is a need to investigate the direct and indirect employment potentials of the proposed corporate strategy of SAIL for drawing a realistic manpower policy for the steel sector in particular and for the economy in general.

In tune with the corporate strategy of the SAIL, the Bhilai Steel Plant (BSP) has proposed a scheme of modernisation and capacity expansion. The scheme envisages not only additional production of steel in the Indian economy but also additional generation of employment opportunities in one of the backward regions of the country in the State of Madhya Pradesh. In this paper an attempt has been made to examine the employment multiplier effects of such modernisation and capacity expansion programmes of BSP by undertaking an input-output exercise. Both the backward and forward linkage effects have been investigated by us with

[1]For details, see Steel Authority of India Ltd., Corporate Planning Directorate, "Corporate Plan for SAIL upto 2000 A.D.", May 1987.

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a view to draw some policy implications for manpower development in our public sector industrial units.

2. Programmes of Modernisation and Capacity Expansion of the Public Sector Integrated Steel Plants

The growth of output in the publict sector ISPs has exhibited a very erratic trend during the past 25 years. While in the initial years the plants exhibited a good performance, in the later years they could not sustain such performances due to a large number of technical and socio-economic constraints. Specifically the growth rates in the late sixties and early seventies showed a decelerating trend. The growth rates from sixties to early eighties provided in the Annex/Table 1 indicate that when in the early sixties the average annual growth rate of saleable steel was 46.75% in the ISPs of SAIL, in the early seventies the same rate decreased to 2% only. Indeed the production figures declined in 1970–71, 1971–72 and 1973–74 indicating a negative growth rate. However, their performances started improving significantly during 1975–76 and 1976–77 with a growth rate of 26.1% and 28.1% respectively. In spite of those improved performances the average growth rate was 8% during late seventies due to negative growths for 1977–78, 1978–79 and 1979–80. Notwithstanding these failures, the performance started showing marginal improvement in the early eighties. On the other hand, as regards the performance of the BSP, the data show that while the average annual growth rate of it was less than the average growth rate of SAIL in the early sixties, the same rate was more than double of the SAIL in the late sixties. However, its late seventies growth rate was very low i.e. 0.42% while the SAIL average was 8%. Similarly in the early eighties its growth rate was lagging behind the overall growth rates of SAIL. But notwithstanding its low growth rate during the last one decade its capacity utilisation was comparatively higher than all other plants of SAIL, i.e. while BSP's average capacity utilisation was 91.1%, for all the units of SAIL the same was 76%[2].

In view of lower and near stagnant growth rate, the overall declining trend in profitability, the rising costs of production and in view of the downward trend in capacity utilisation, the SAIL has drawn a corporate strategy of modernisation and capacity expansion plan for all its integrated plants. The SAIL has envisaged the following corporate missions:

—to achieve rapid expansion and optimisation of its production capacity;

—improvement in technology, profitability and commercial competitiveness;

[2]For plant-wise details of capacity utilisation, see Annex. 1·1 of the "Corporate Plan of SAIL", op. cit.

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—self-reliance in resources;

—improved quality of products and better customer services.

Accordingly the SAIL has projected its broad goals and the most important among them has been identified as its policy of enhancement of the production capacity. By foreseeing a good market for steel and steel products in the coming years due to changing socio-economic environment in our economy and in order to fulfil the broad goals of our Five Year Plans, the SAIL has proposed to increase its production capacity of saleable steel from 7.19 million tonnes (MT) in 1984–85 to 15.2 MT by the turn of the century in stages: around 9.1 MT by 1989–90, 12.3 MT by 1994–95 and 15.2 MT by 1999–2000 A.D. To achieve the above objectives they have worked out a number of growth strategies like modernisation and technological upgradation, brown-field as well as green-field expansion, improving instrumentation, automation and computerisation, improvement in RM and energy use practices, adoption of new marketing policies and streamlining the personnel management by emphasising on human resource development.

In order to operationalise these policies and programmes they have estimated an investment to the tune of Rs 15,254 crores for the period from 1987–88 to 1999–2000 at current market prices. Of course, these outlays/investments would be inclusive of the investment on development of mines and other services needed for expansion and modernisation. Due to this massive investment in the public sector steel plants, its related sectors of the economy would be induced to produce more and more of goods and services. Thereby they would not only generate additional output and income but also they are likely to employ more of labour forces. The latter part of those effects in terms of employment multipliers have been investigated by us in this paper by undertaking a case study of the BSP.

III. Modernisation Programmes of the BSP

Adhering to the corporate goals and strategies of SAIL, the Bhilai Steel Plant that contributes nearly one-third of the saleable steel for SAIL, has drawn the schemes of capacity expansion and modernisation. BSP has projected to achieve its full rated capacity in 1989–90 in respect of hot metal, crude steel, and saleable steel. The Blast Furnace productivity has been planned at the DPR level. The capacity of saleable steel has been proposed to go up from 2.12 MT in 1984–85 to 4.00 MT in 1989–90 and ultimately 5.00 MT in 1999–2000. The details of their programme are given in Annex/Table 2 along with the average annual growth rates. Further, in order to achieve higher capacity utilisation and also to improve the quality of steel they have adopted the various strategies of SAIL. To accomplish those tasks the BSP has estimated a total outlay

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of Rs 2954 crores during 1987–88 to 1999–2000, i.e. around 20% of the investment of SAIL would flow to BSP. For attaining the higher rated capacity, the BSP would draw massive inputs from our economy as well as from outside our economy. The machinery and input requirements, consumption of ancilliary products, and raw material consumptions would go up significantly. The details of such changes in the RM profiles are given in Annex/Table 2. The additional demands by BSP in its turn would generate backward linkages in our economy. On the other hand, it is expected that the additional steel products and their by-products when flow to various sectors of our economy (in the form of forward linkage flows) would generate a number of impacts in terms of additional output as well as additional employment. In this paper those impacts in terms of employment multipliers have been investigated by the help of input-output techniques.

IV. Methods of Calculation of Employment Multiplier Linkages

The concept of employment multiplier bas been used in a variety of ways in writings of development economists. The implications of direct and indirect employment effects are considered at macro-economic, sectoral and project levels for decision-making. It is often argued now-a-days that the emphasis on output and employment planning needs to be shifted from the aggregate growth path to the more crucial question of the output mix and its effects on growth through backward and forward linkages. Such a shift in emphasis, no doubt, bears obvious implications for industrial policies and for industrial planning.

Further, in case of any particular industrial unit the choice of technology is generally influenced by direct and indirect employment generation impacts. As mentioned earlier such effects of change in technologies can be empirically examined with the help of input-output exercises and by undertaking direct field investigations.

(a) *The Process of Generation of Indirect and Secondary Employment*

The idea that expansion of any particular economic activity involves the expansion of other input-supplying activities is simple and obvious. When Kahn[3] introduced the concept of employment multiplier into economics, he clearly stated the inter-industry multiplier effects in the following terms:

"The increased employment that is required in connection with the increased investment will be described as the 'primary' employment. It includes the 'direct' employment, and, of course, the 'indirect' employ-

[3]Kahn, R. F., "The relation of home investment to unemployment", in *Economic Journal*, June 1931, reprinted in Kahn, *Selected Essays on Employment Growth*, Cambridge University Press, 1972.

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ment that is generated in the process of production and transportation of the raw materials required for making the new investment. Further, to meet the increased consumption expenditure due to higher wages and profits associated with primary employment, the production of consumer goods is increased and the effect is passed on, though with diminished intensity . . . The total employment that is generated in this way in the production of consumption goods will be termed 'secondary' employment."

Within an input-output framework it is possible to derive a set of multipliers that would describe the summary measures of the total repercussions in terms of adjustments in output and employment generated by a given change in the final demand vector.[4] The input-output model enables us to analyse the impact of changes in the public and private expenditure upon outputs of the sectors which are given by the Leontief inverse. Any general familiarity with such inter-industry technique would convince that the impact of an initial expenditure on an economic system depends not merely on its expenditure volume but on the inter-industrial and inter-regional linkages of the sector (where it occurs) with the rest of the economy.

(*b*) *Direct and Indirect Multipliers*

One of the important features of an inter-industry flow table is that it illustrates the manner in which the activities of the industrial sector are linked in a maze of interdependence. The technical coefficients obtained from the flow matrix can reasonably be assumed to remain stable in the short-run. Given this assumption, the input-output model can be used to obtain a set of internally consistent levels of output for any postulated final demand. The structural relations thus obtained are likely to change in the long-run, but it might be possible to obtain tentative projections of future coefficients by considering potential future improvements.

A unit of output in each sector requires several inputs from the various other sectors as illustrated by the column entries of the coefficient matrix. In the second round these inputs themselves have to be produced by the respective sectors by using quantities of inputs from various other sectors. Similarly, the second round inputs must be produced and so on. This sets in motion a chain of reactions in the various sectors of the economy.

The basic equation of the input-output model can be expressed as

$$X = (\text{I-A})^{-1}F$$

[4]For elaboration, see Miernyk, W. H., *Simulating Regional Economic Development*, Health Lexington Books, Massachusetts, 1970 and Richardson, H. W., *Input-Output and Regional Economics*, Weidon Feld and Nicholson, London, 1972.

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For the output of ith sector, it can be expressed as

$$x_i = \sum_{J=1}^{n} A_{ij}\bar{F}_j,^5$$

where the coefficients A_{ij} are defined as activation coefficients (activation of the output for jth sector over the production ith sector). The coefficients are so symbolized because these denote the total direct and indirect production requirement of the ith good necessary to meet one unit of final demand for the jth good. A_{ij} then represents the activation that one unit of final demand for the jth good exerts on the production of the ith good. The summation of the direct and indirect requirements is given by the value of the A_{ij} coefficients.

The Leontief inverse in the open input-output model is, therefore, a unique device to capture all the direct and indirect effects of a unit increase in final demand. The elements in each of the columns in the inverse give the direct and indirect requirements from the various sectors in the row to produce a unit increase in the final demand of the sectors at the top.

In this paper we are interested in examining the output and employment implications of the expansion in final demand of a particular steel plant i.e. Bhilai and for this purpose we need to know both the factor output ratios of the different sectors and the increase in output in each of the sectors needed to sustain the expansion of final demand in our chosen industry.

(*i*) *Direct and Indirect Backward Employment Linkages of Steel*: We know that additional steel production would be very much dependent on the inputs and resources supplied by other industries. On the eve of modernisation and capacity expansion of the steel plants, those industries which are engaged in production of material and machines required by those plants would enhance their production and thereby may employ more and more labourers along with other inputs.

In an input-output framework to quantify such direct and indirect impacts of the additional steel production, we have assumed zero output for all sectors other than the chosen one for which we have assumed the unit level of output. As we have defined A_{ij} as an element of $(1 - A)^{-1}$ matrix, l_i as the direct labour coefficient i.e. (L_i/X_i), such a model can be illustrated as follows:

[5]See Leontief, W., *Input-Output Economics*, New York, Oxford University Press, 1966.

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$$\begin{bmatrix} l_1 0 \dots 0 \\ 0 \\ \vdots \\ \vdots \quad l_s \quad \vdots \\ \vdots \\ 0 \dots 0 l_n \end{bmatrix} \begin{bmatrix} A_{11} \dots A_{1s}^{*} \dots A_{1n} \\ \vdots \\ A_{s1} \quad A_{ss} \quad A_{sn} \\ \vdots \\ A_{n1} \dots A_{ns} \dots A_{nn} \end{bmatrix} \begin{bmatrix} 0 \\ \vdots \\ 1 \\ \vdots \\ 0 \end{bmatrix} = \begin{bmatrix} l_1 A_{1s} \\ \vdots \\ l_s A_{ss} \\ \vdots \\ l_n A_{ns} \end{bmatrix}$$

The labour multiplier vector, which is shown in the right-hand side implies to increase output of steel by rupee 1, $l_s A_{ss}$ rupees worth of labour would be required directly and $\sum_{i=1}^{n} l_i A_{is} - l_s A_{ss}$ rupees worth would be required indirectly. Since the column of $(I\text{-}A)^{-1}$ takes into account the direct and indirect requirements of the outputs of the other sectors, so its total is called the backward linkage of that sector which is represented by

$$\sum_{i=1}^{n} l_i A_{ij}. \quad [6]$$

(ii) Direct and Indirect Forward Employment Linkages of Steel: The forward linkage effects of steel in the labour market can be explained as follows. That owing to the additional steel production there will be an increase in the output levels of those industries which are using steel as one of the main inputs. It is likely that they would be induced to produce more and more due to additional availability of the key inputs from the steel plants. As illustrated above for estimation of forward linkages in the input-output framework we have taken the steel row in the $(I\text{-}A)^{-1}$ and the same has been multiplied by the labour coefficients. Thereby the direct and indirect forward employment linkages have been calculated as given below:

By taking into account the above explained models one can calculate the total direct and indirect impacts of both backward and forward linkages as follows:

$$\sum_{i=1}^{n} l_i (A_{ij} + A_{ji})$$

(c) Inter-Sectoral Linkages in the Semi-Closed Input-Output Model

In the preceding section we have examined the direct and indirect effects on employment when output is expected to change. Next we have extended the analysis of the inter-sectoral linkages by using the semi-closed input-output model. This model is a modification and an improve-

*Here sth sector is for BSP.

[6]For details, see K. K. Saxena, *Regional Input-Output Model for Small Scale Industries*, Himanshu Publication, 1987.

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ment over the open input-output model and takes into account the induced effect. While the open system is capable of evaluating only the direct and indirect effects on the employment, the semi-closed system provides estimates of the overall effect, i.e. direct, indirect and induced effects on production and employment generations. The theoretical basis of the direct, indirect and induced effects can be explained as follows:

As we know that when output of a particular sector increases, the value added of that sector as well as the output of the backward and forward sectors also changes. These changes are expected to bring a round of changes in wages and salaries in the labour market which, in turn, induces the consumption. In this process a round of repercussions on output, personal income and consumption levels will occur in the economy.

To calculate such overall impact, a semi-closed input-output model is generally used in which household consumption is taken as an input column and wages and salaries of the different sectors as a row in the transection matrix. In this way the semi-closed system takes into account the demand factors as well as the supply factors.

By undertaking such an exercise there will be an additional row and column in the original technological coefficient matrix. If one denotes the new technology matrix as A^* then the semi-closed model can be expressed as

$$X = (\text{I-A}^*)Y$$

As explained earlier to calculate the employment multipliers if one applies the same methodology then the backward and forward employment multipliers with induced effects will be expressed as follows:

$$\sum_{i=1}^{n} l_i^*(A_{ij}^* + A_{ji}^*)$$

(where A_{ij}^* and A_{ji}^* are the coefficients of the column and row of ISP in (I-A*).

Furthermore, when one converts the open model into the semi-closed model and reestimates the coefficient values, the employment linkage multiplier values will improve significantly. The improved values would re-establish the hypothesis that the induced effects of any industrial activity would be much larger than the direct and indirect effect.

V. Additional Employment Generation Potentials of the BSP Through Linkages

The additional steel production by the BSP will be very much dependent on the availability of inputs and raw materials supplied by other industries. Due to capacity expansion in the BSP, the industries that are engaged in the production of inputs, raw materials and the machinery for BSP would be induced to enhance their production and in the process

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of this adjustment they are likely to employ more and more labourers. It is evident from the Annex/Table 2 that consequent upon the modernisation and capacity expansion of the BSP the major raw material requirements would go up significantly. Although it has been envisaged that input(raw material)-output ratio will marginally go down but in absolute terms the physical requirements will go up. For instance, when in 1984–85 the iron-ore requirement per tonne of steel was 1.72 tonnes the same would go down to 1.69 tonnes in the year 1999–2000 A.D. But on the other hand the quantity of Iron Ore consumed that was 4.04 million tonnes (MT) would go upto 8.80 MT by the end of the century. Similarly the Coal and Limestone requirements would go up from 3.39 MT and 1.31 MT to 6.25 MT and 4.02 MT respectively. The modernisation plan has proposed that the Limestone ratio per tonne of steel will go up from 0.56 tonnes in 1984–85 to 0.77 tonnes in 1999–2000. The extraction and transportation of all these RMs to the BSP would also generate a number of indirect and secondary employment opportunities elsewhere in the economy.

Similarly in the output market, the main products marketed by the BSP are Pig-Iron, Blooms, Plates, Rails, Slabs, Heavy structural items and Light structural items. Further, it generates and markets the subsidiary products/by-products like Ammonium Sulphate, Tar products, Benzol products and processed slags, etc. All these items flow to various sectors of our economy and thereby generate linkages. The flow chart given in Annex/Chart 1 shows that while Pig-Iron flows to foundries, forging and casting units, SSI and other Ancilliary industries, the Semies are used by the re-rollers, traders, construction sector, SSI and other industries. The finished steel in the form of structurals, bars and rods, plates, etc. flows to the Construction sector, Railways and other manufacturing units. Similarly, the additional supply of by-products by the BSP which is envisaged to increase by two and half times, when flows to agriculture, SSI and manufacturing sectors of the economy either for end-use or for intermediate use would generate employment linkages elsewhere.

When additional capacity will be created in the BSP it is expected that the production as well as flow of these items will definitely go up. Thereby the output of these forward linkage sectors will also go up owing to additional availability of steel and its by-products. The employment effects associated with such changes should be considered in examining the overall impact of the BSP in a backward region of the country.

Moreover the inflow of additional raw materials and inputs as well as the flow of additional finished steel and by-products will necessitate more of transport and communication services. The SAIL's Corporate Plan has also proposed that the transport mix between the Railway and Roadways will change in favour of Roadways. Since the mode of Road

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transport and its linkage sectors are relatively more labour intensive, we expect that in future the Roadways sector will generate more of employment opportunities in the economy.

VI. Procedures of Estimation of Backward and Forward Linkages of BSP

Before we present our estimates and results for the BSP, we have discussed below the procedures of arriving at these input-output estimates.

(*a*) *Procedure of Input-Output Estimates*

In order to arrive at the desired estimates of our study, first of all we have used the all-India Input-Output (50×50) matrix prepared by the Planning Commission[7], Government of India, for the year 1984–85 at factor prices. However, for effective estimation of the employment multipliers for the BSP, the same table has been aggregated into 39×39 sectors including steel as one of the major sectors[8]. To segregate the SAIL (except Bhilai) and Bhilai's output from rest of the country's steel output we have further constructed two new rows and columns in the said matrix. The output of SAIL and Bhilai then has been subtracted from the Steel column of the Indian economy. Thereby the dimension of the new transection matrix has become 41×41.

In order to construct the additional row and column for BSP, we have proceeded as follows:

The data on raw materials used by the Bhilai Steel Plant have been taken from the Annual Report of BSP 1984–85[9]. However, these raw material figures are classified and adjusted as per transection matrix aggregated by us. For example, the consumption of Limestone and Dolomite has been aggregated and kept in the non-metallic and minor minerals sector. Coke is taken in the Coal Tar products sector and in the same way the Ferro-Alloys consumed by BSP has been taken into the Iron and Steel sector. For some raw materials, when the data for Bhilai were not available, we have assumed the inputs used in proportion to SAIL's output, i.e. input-output ratios for SAIL, and the same ratios are applied for Bhilai. Sectoral labour coefficients used in our study have been calculated by us from the data collected from the Annual Survey of Industries 1984–85[10] and National Income Account 1984–85[11]. While for the manu-

[7]A Technical Note on Seventh Plan of India (1985–90), Perspective Planning Division, Planning Commission, Government of India, June 1986.

[8]The detail of the sectorisation scheme is given in Annex/Exhibit 1.

[9]Steel Authority of India Ltd. Plants' Accounts (1984–85), Regd. Office: Ispat Bhawan, Lodi Road, New Delhi; Print Craft, New Delhi-27.

[10]Annual Survey of Industries (1984–85), Central Statistical Organisation, Dept. of Statistics, Ministry of Planning, Government of India, New Delhi.

[11]National Accounts Statistics (1970–71—1984–85), Central Statistical Organisa-

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facturing industries details about the employment and value of output have been collected from the ASI, for agriculture and service sectors required data were collected from the National Income Accounts. Those employment coefficients have been expressed as the number of employment per Rs one lakh of gross output.

VII. Estimates of Employment Multiplier for Bhilai Steel Plant

(a) *Estimates of Direct and Indirect Backward Multipliers*

The values of these multipliers, calculated as per the methodology explained earlier, are provided in Annex/Table 3. The fifth column of the table gives both the direct and indirect backward linkage impact on the entire Indian economy for Rs one lakh worth of additional steel produced by the Bhilai Steel Plant. An analysis of the values given in the table shows that to produce steel worth of Rs one lakh, while BSP employs only .5981 manpower directly, its direct and indirect impacts on the backward linkage industries have become 5.8446. Furthermore, the values in column 5 indicate that the highest impact of the additional steel from the BSP in terms of additional employment generation has been in Other Services Sector (41)*. The next highest backward linkage employment multiplier is in the Rail and Other Transport Services (37) which is followed by Coal and Lignite (5), Iron and Steel produced by Bhilai (27) and Iron Ore (7).

(b) *Estimates of Direct and Indirect Forward Multipliers*

The estimated values of these multipliers are given in Annex/Table 3. The sixth column of the table gives both the direct and indirect forward employment linkages impact on the entire economy, if the additional steel worth of Rs one lakh is produced by the BSP. It is evident from the table that the total direct and indirect impact on employment in the forward linkage industries is 1.6805. The forward linkage multiplier is the highest in the Iron and Steel produced by Bhilai (27), followed by Rail equipment (32), Rail and Other Transport Services (37), and Iron and Steel produced by Rest of India (28).

By taking into account the values in columns 5 and 6, the total backward and forward employment multiplier impacts of the BSP on the economy have been 6.5181. This implies that the total multiplier impact on both down-stream and up-stream industries of the Indian economy will be 6.5181.[12]

tion, Dept. of Statistics, Ministry of Planning, Government of India, New Delhi; printed by the Manager, Government of India Press, Faridabad.

*Figures in parentheses depict the number of the sector as our sectorisation.

[12]It may be noted that in arriving at this total of backward and forward multiplier linkages we have subtracted once the value of $l_i A_{ii}$ i.e. 1.0071, which is at the intersection of the BSP's row and column in the $(I-A)^{-1}$ to avoid the double counting.

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(c) *The Direct and Indirect Backward Multipliers with Induced Effects*

As explained in the methodology the open I-O system is capable of evaluating only the direct and indirect effects on the employment generations whereas the semi-closed system gives us the estimates of the overall effect, i.e. direct, indirect and induced effects on production and employment generation. So we have extended the analysis of the intersectoral linkages by using the semi-closed input-output model. The estimated values of these multipliers are given in Annex/Table 4. The data in table reveal that the total impact of BSP's output on the economy's employment through the backward linkage industries is 11.7376. This improved induced effects value has reestablished the hypothesis that the induced effect of any industrial activity is much longer than the direct and indirect effects. In case of BSP it has changed more than twofolds in generating the employment multiplier linkages.

The backward induced linkage multiplier is the highest in Agriculture (1), followed by Other Services (41), Rail and Other Transport Services (37), Coal and Lignite (5), Iron and Steel (BSP) (27), and Iron Ore (7).

(d) *The Direct and Indirect Forward Multipliers with Induced Effects*

The estimates of these multipliers are also presented in column 6 of Annex/Table 4. A comparative analysis of the multiplier values indicates that the direct, indirect and induced impact of BSP's additional output on the forward linkage industries is the highest in Iron and Steel produced by BSP itself. The BSP has been followed by Rail Equipment (32), Rail and Other Transport Services (37), Agriculture (1), and Coal and Lignite (6). However, the total forward induced impact has been 1.88, which is higher by 0.1994 than the direct and indirect forward multiplier without induced effects.

VIII. Concluding Remarks

Our estimates of the input-output linkage multipliers have highlighted that on the eve of capacity expansion and modernisation, the BSP would generate positive impacts in both the forward and backward linkage sectors of the economy. The analysis of the figures of BSP and our estimates shows that in 1984–85 while the BSP had directly employed 0.028 persons to produce a tonne of saleable iron and steel, with the incorporation of both direct and indirect forward as well as backward linkages, the employment per tonne has gone upto 0.34 which implies more than 12 times rise in employment in the total economy. On the other hand when

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we have taken into account the induced effects in terms of higher wages and salaries and consumption expenditure, then the multiplier has significantly improved. With these impacts the direct and indirect employment per tonne of steel has gone up to 0.65, which is 23.21 times higher than the direct employment requirement.

It has been further observed by our estimates that the backward employment multiplier linkages of the BSP are more pronounced than the forward multipliers, which implies that the modernisation and capacity expansion in the BSP would generate more of indirect and secondary employment impacts in their backward linkage industries. It is evident from Annex/Table 3 that when the direct and indirect backward employment multiplier value is 5.84, the same value with forward linkages has been 1.68. The same trend has also been observed in case of the multipliers with the induced effects.

While analysing the intensity of the multipliers of the different sectors, it has been observed that there is a strong correlation between the direct and indirect multipliers and the multipliers with induced effects. In both the cases the backward linkage multiplier values are higher in Other Services, Rail and Transport Services, Coal and Lignite, Iron and Steel (BSP) and from Ore Sectors. The only exception is Agriculture Sector which is higher in the case of induced multiplier.

On the other hand the analysis of results of forward linkage multipliers has indicated that the values are higher in Iron and Steel (BSP), Rail Equipment, Rail and Other Transport Services, Iron and Steel (Rest of India) and Coal and Lignite. Again Agriculture is an exception in the case of induced multipliers value where it has achieved the fourth rank among the sectors.

On the basis of these above findings, we would like to conclude that the programme of capacity expansion and modernisation of the public sector integrated steel plants, and more particularly of the BSP, is an appropriate policy of the Government toward attainment of employment generation goal of our Five Year Plans.

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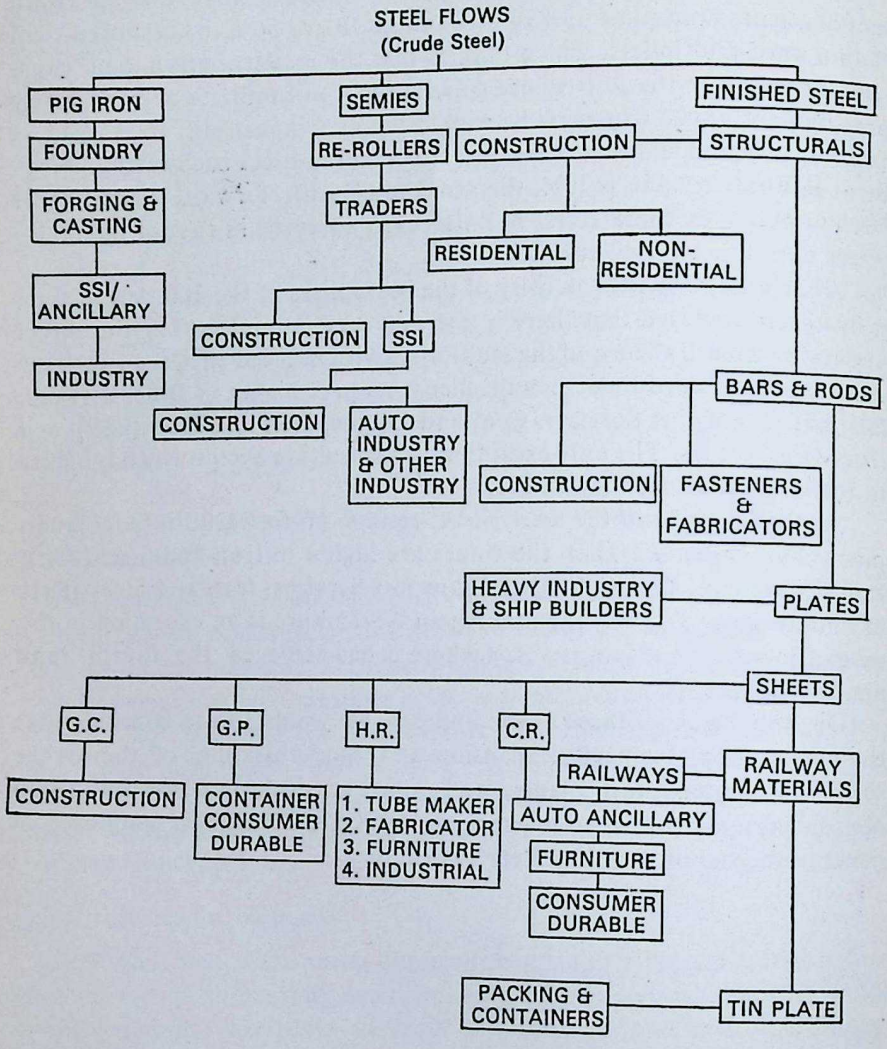
ANNEX/CHART 1

FLOW CHART FOR STEEL INDUSTRY



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ANNEX/TABLE 1

AVERAGE ANNUAL GROWTH RATES OF SAIL UNITS AND THE BSP

S. No.	Time Period	Average Annual Growth Rate (in percentages)	
		SAIL Units	BSP
1.	Early Sixties (1960–61 to 1964–65)	46.75	31.35
2.	Late Sixties (1965–66 to 1969–70)	04.00	10.91
3.	Early Seventies (1970–71 to 1974–75)	02.00	02.64
4.	Late Seventies (1975–76 to 1979–80)	08.00	0.42
5.	Early Eighties (1980–81 to 1984–85)	04.00	01.65

Sources: Compiled from—
(a) 15th Annual Report, 1986–87, SAIL
(b) Bhilai Up-date, 1984–85, BSP.

Note: The annual growth rate figure relates to the growth of saleable steel only.

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ANNEX/TABLE 2

INPUT-OUTPUT PARTICULARS OF THE BHILAI STEEL PLANT FROM 1984–85 TO 1999–2000 A.D.

(A) *Output Particulars*

(Capacity and quantity in million tonnes)

S.No.	Items	1984–85		1985–86		1986–87		1989–90		1994–95		1999–2000 A.D.	
		Capacity	Qty.	Capacity	Qty.	Capacity	Qty.	Capacity	Qty.	Capacity	Qty.	Capacity	Qty.
1.	Pig Iron (Saleable)	0.79	0.53	0.54	0.39	0.80	0.31	—	0.51	—	0.37	—	0.62
2.	Saleable Steel	2.12	1.81	2.41	2.06	2.68	2.15	4.00	3.15	4.00	3.75	5.00	4.57
3.	TOTAL STEEL	2.91	2.34	2.95	2.44	3.48	2.46	—	3.67	—	4.11	—	5.19
4.	Relative Annual Growth Rate (in %)	15.0 (13.3)*		4.27 (11.22)		0.82 (11.06)		16.40 (22.1)		8.80 (7.12)		5.25 (4.63)	

*The figures in brackets indicate the average annual growth rate of all the units of SAIL.

(B) *Input Particulars : Raw Material Consumption of BSP*

(Quantity in million tonnes)

S.No.	Items	1984–85		1985–86	1986–87	1989–90	1994–95	1999–2000 A.D.	
		Qty.	Input-Output Ratio	Qty.	Qty.	Qty.	Qty.	Qty.	Input-Output Ratio
1.	Iron Ore	4.04	1.72	4.44	4.14	7.26	7.86	8.80	1.69
2.	Coal	3.39	1.49	3.50	3.29	6.25	6.02	6.25	1.21
3.	Limestone	1.31	0.56	1.27	1.31	2.56	2.94	4.02	0.77
4.	Dolomite	.36	0.15	.32	.27	.60	.63	.40	0.077
5.	Manganese Ore	.12	0.05	.12	.08	.18	.23	.25	0.048
6.	Ferro-Manganese	.05	0.02	.05	.05	.08	.81	.05	0.009
7.	Ferro-Silicon	.002	0.0008	.004	.004	.009	.007	.01	0.001
8.	Refractory	.13	0.055	.14	.13	NA	NA	NA	—
9.	Intermediary Products	.08	0.034	.01	.19	NA	NA	NA	

Source: Compiled from (a) the Annual Reports of SAIL; (b) the Corporate Plan upto 2000 A.D. by SAIL.

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ANNEX/EXHIBIT 1

SECTORAL CLASSIFICATION OF THE INDIAN ECONOMY

Sector No.	Industrial Sectors	Sector No.	Industrial Sectors
1.	Agriculture	23.	Other Chemicals
2.	Animal Husbandry and Food Beverage Industries	24.	Cement
3.	Forestry and Logging	25.	Other Non-Metallic Mineral Products
4.	Fishing	26.	Iron and Steel (Other Integrated Steel Plants)
5.	Coal and Lignite	27.	Iron and Steel—Bhilai
6.	Crude Petroleum and N. Gas	28.	Iron and Steel (Rest of India)
7.	Iron Ore	29.	Non-Ferrous Metals
8.	Other Metallic and Non-Metallic Minerals	30.	Non-Electrical Machinery
9.	Sugar, Khandsari and Boora	31.	Electrical Machinery
10.	Cotton Textile	32.	Rail Equipment
11.	Art Silk, Synthetic Fibres Textile	33.	Motor Vehicles
12.	Woollen Textile	34.	Other Transport Vehicles
13.	Other Textile	35.	Communication and Electronics Equipments
14.	Wood Based Industries	36.	Other Manufacturing
15.	Paper and Paper Based Industries	37.	Rail and Other Transport Services
16.	Leather and Leather Products	38.	Electricity, Gas and Water Supply
17.	Rubber Products	39.	Construction
18.	Plastics	40.	Communication
19.	Petroleum Products	41.	Other Services
20.	Coal Tar Products	42.	Private Consumption
21.	Fertilizer and Pesticides		
22.	Synthetic Fibres		

Explanatory Notes:

1. The Sector 1 here includes Paddy (01), Wheat (02), other cereals (03), Pulses (04), Fibre Crops (05), Tea/Coffee (06), and Other Crops (07).
2. Sector 2 here includes Animal Husbandry (08) and Food Beverage Industries (18).
3. Sector (08) here includes Other Metallic Minerals (14) and Non-Metallic Minor Minerals (15).
4. Sector 9 here includes Sugar (16), Khandsari and Boora (17).
5. Sector 21 here includes Fertiliser (30) and Pesticides (31).
6. Sector 26 here includes the Integrated Steel Plants of SAIL (viz. BSP, DSP, RSP, BSL and IISCO) and TISCO.
7. Sector 37 here includes Rail Transport (45) and Other Transport Services (46).
8. Figures in parentheses are the sector nos. of Planning Commission input-output table for 1984–85.

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ANNEX/TABLE 3

ESTIMATES OF DIRECT AND INDIRECT, BACKWARD AND FORWARD EMPOYMENT MULTIPLIER FOR THE BSP

Sector No.	Labour Coefficient	Coefficient of column of (I-A) for BSP	Coefficient of row of (I-A) for BSP	Backward employment multipliers	Forward employment multipliers
1.	32.7387	0.0079	0.0007	0.2586	0.0229
2.	0.8944	0.0047	0.0016	0.0042	0.0014
3.	3.9170	0.0017	0.0009	0.0067	0.0035
4.	7.2365	0.0009	0.0006	0.0065	0.0043
5.	4.1244	0.1952	0.0057	0.8051	0.0235
6.	2.3849	0.0271	0.0016	0.0646	0.0038
7.	9.4649	0.0432	0.0032	0.4089	0.0303
8.	9.4649	0.0337	0.0026	0.3190	0.0246
9.	4.8554	0.0002	0.0032	0.0010	0.0155
10.	1.5431	0.0042	0.0026	0.0065	0.0040
11.	0.7329	0.0011	0.0019	0.0009	0.0014
12.	1.2165	0.0001	0.0021	0.0001	0.0025
13.	1.8266	0.0193	0.0027	0.0353	0.0049
14.	1.8542	0.0024	0.0034	0.0045	0.0063
15.	1.2089	0.0147	0.0031	0.0178	0.0037
16.	0.9374	0.0000	0.0023	0.0000	0.0022
17.	0.5043	0.0044	0.0034	0.0022	0.0017
18.	0.7573	0.0010	0.0020	0.0008	0.0015
19.	0.0318	0.0460	0.0041	0.0015	0.0001
20.	0.3829	0.0078	0.0057	0.0030	0.0022
21.	0.2150	0.0006	0.0033	0.0001	0.0007
22.	0.3136	0.0019	0.0022	0.0006	0.0007
23.	0.5011	0.0286	0.0025	0.0143	0.0013
24.	0.4400	0.0008	0.0052	0.0004	0.0023
25.	2.1576	0.0165	0.0054	0.0356	0.0117
26.	0.5599	0.0340	0.0230	0.0190	0.0129
27.	0.5981	1.0071	1.0071	0.6023	0.6023
28.	0.6418	0.0636	0.0647	0.0408	0.0415
29.	0.5029	0.0464	0.0062	0.0233	0.0031
30.	0.8349	0.1031	0.0411	0.0861	0.0343
31.	0.6478	0.0094	0.0264	0.0061	0.0171
32.	2.1960	0.0030	0.2392	0.0066	0.5253
33.	0.6496	0.0087	0.0373	0.0057	0.0242
34.	0.9762	0.0039	0.0266	0.0038	0.0260
35.	0.9533	0.0002	0.0095	0.0002	0.0091
36.	0.9116	0.0197	0.0236	0.0180	0.0215
37.	10.8383	0.0985	0.0113	1.0767	0.1225
38.	0.9483	0.0993	0.0047	0.0942	0.0045
39.	2.2709	0.0234	0.0138	0.0531	0.0313
40.	5.3886	0.0024	0.0014	0.0129	0.0075
41.	10.2654	0.1760	0.0012	1.8067	0.0205
			TOTAL	5.8446	1.6806

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ANNEX/TABLE 4

ESTIMATES OF DIRECT, INDIRECT AND INDUCED BACKWARD AND FORWARD EMPLOYMENT MULTIPLIER FOR THE BSP

Sector No.	Labour Coefficient	Coefficient of column of (I-A) for BSP	Coefficient of row of (I-A) for BSP	Backward employment multipliers	Forward employment multipliers
1.	32.7387	0.1345	0.0018	4.4034	0.0688
2.	0.8944	0.0692	0.0029	0.0620	0.0026
3.	3.9170	0.0028	0.0027	0.0110	0.0106
4.	7.2365	0.0040	0.0022	0.0289	0.0159
5.	4.1244	0.1986	0.0071	0.8191	0.0293
6.	2.3849	0.0367	0.0021	0.0875	0.0050
7.	9.4649	0.0433	0.0045	0.4098	0.0426
8.	9.4649	0.0351	0.0037	0.3322	0.0350
9.	4.8554	0.0132	0.0048	0.0641	0.0233
10.	1.5431	0.0221	0.0044	0.0341	0.0068
11.	0.7329	0.0071	0.0032	0.0052	0.0023
12.	1.2215	0.0010	0.0037	0.0012	0.0049
13.	1.8266	0.0322	0.0047	0.0588	0.0086
14.	1.8542	0.0034	0.0049	0.0063	0.0091
15.	1.2089	0.0201	0.0046	0.0243	0.0056
16.	0.9374	0.0024	0.0038	0.0022	0.0036
17.	0.5043	0.0064	0.0047	0.0032	0.0024
18.	0.7573	0.0026	0.0030	0.0020	0.0023
19.	0.0318	0.0622	0.0047	0.0020	0.0001
20.	0.3829	0.0083	0.0073	0.0032	0.0028
21.	0.2150	0.0097	0.0045	0.0021	0.0010
22.	0.3136	0.0044	0.0033	0.0014	0.0010
23.	0.5011	0.0417	0.0036	0.0209	0.0018
24.	0.4400	0.0009	0.0066	0.0004	0.0029
25.	2.1576	0.0183	0.0069	0.0395	0.0149
26.	0.5599	0.0351	0.0250	0.0197	0.0140
27.	0.5981	1.0081	1.0081	0.6029	0.6029
28.	0.6418	0.0680	0.0662	0.0436	0.0425
29.	0.5029	0.0491	0.0075	0.0247	0.0038
30.	0.8349	0.1076	0.0425	0.0898	0.0355
31.	0.6478	0.0119	0.0278	0.0077	0.0180
32.	2.1960	0.0141	0.2409	0.0090	0.5290
33.	0.6496	0.0111	0.0386	0.0072	0.0251
34.	0.9762	0.0063	0.0282	0.0062	0.0275
35.	0.9533	0.0018	0.0107	0.0017	0.0102
36.	0.9116	0.0233	0.0250	0.0212	0.0228
37.	10.8383	0.1337	0.0133	1.4491	0.1441
38.	0.9483	0.1094	0.0058	0.1037	0.0055
39.	2.2709	0.0296	0.0159	0.0672	0.0361
40.	5.3886	0.0043	0.0043	0.0232	0.0232
41.	10.2654	0.2762	0.0036	2.8353	0.0370
42.	0.0020	0.2983	0.0047	0.0006	0.0000
			TOTAL	11.7376	1.8800

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MONETARISM AND THE SYSTEM OF CONSUMPTION: A GRASS-ROOTS VIEW OF THE NEW DEAL*

EIICHI AKIMOTO

Professor of Economic History
Department of Economics
Chiba University, Japan

Introduction

It seems rather difficult for us to have a balanced view of the period of the Great Depression and the New Deal where economics and history meet. In the field of economic history, analysis by some scholars had a tendency to become either too economic or too historical. In many cases, the policy-making process of the New Deal has been mostly interpreted in terms of the logic of economics among economists and in terms of the decision-making process of the New Dealers themselves among historians.[1]

There has been a consensus among Japanese historians that the New Deal represented a prototype of modern capitalism of the parliamentary democracy type, offering a marked contrast to the contemporary Nazi regime. The gradual shift of New Deal historiography in the U.S., which first appeared as the rise of the New Left historians, and second as a flourishing increase of various studies along the new social history trend deeply affected Japanese scholars as well. It has become increasingly important for us to integrate these social history studies of various fields into the "main-stream" history.

The Depression Decade, when so many ideas and policies were openly discussed and molded into consensus by politicians, movement leaders, bureaucrats, scholars and people in general, thus provides us an ideal period to examine various methodologies of historical analysis. This paper focuses on the role of ideas ingrained in the people and in the leaders, and also on the role of people's movements in the policy-making process. Some ideas reflected the general attitude of the public, and some did not. The economic or political soundness of each idea itself is beyond our concern.

Economic Visions and Political Alternatives under the Great Depression.

*A Paper Presented at The 21s International American Studies Seminar October 31 —November 2, 1986, Chunchon, Korea.

[1]As a typical "state-centered" interpretation of the New Deal policy making process, see Skocpol (1980), and Skocpol and Finegold (1980).

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(1) Malcolm Cowley wrote in his memoir that "those were the days when public libraries, while trying to get along on reduced budgets, were crowded as never before", (Cowley, 1964; p. 31), and almost everyone was trying to be an economist of sorts". (Ibid., p. 27), Joseph Dorfman put it in another way (1959; p. 630):

> Popular explanation of the causes of the depression and a wide variety of corrective proposals poured from all sides. The challenge of the depression made "amateur economists" of most thinking citizens. From the ranks of journalism, philosophy, the law, engineering, the physical sciences, and enlightened business came the leaders of the search for answers.

Economic visions and political alternatives held by intellectuals and common people during the depression can be summarized as the following four major trends.

First, liberal intellectuals were increasing their concern and sympathy for Soviet Russia which was thought to be free from depression and unemployment. With its Five Year Plan, Russia represented an ideal for planners, making a sharp contrast with chaotic America, and "with the collapse of the stock market and the onset of the depression, . . . interest in Russia took on a new note of urgency". (Pells, 1973; p. 62). Some travelers who went to Russia in this period came back with confidence in its planning.

Secondly, a strong sentiment for a farmer-labor party developed particularly among progressives and farm leaders of the Midwest. The party had to accomodate workers, farmers, and the rising middle-class people who had been excluded from "the Progressive consensus". (Pells, 1973; p. 10). John Dewey founded the League for Independent Political Action in 1929, and LIPA formed the Farmer-Labor Political Federation in 1933 which criticized New Deal policies and helped push them to the left.

Thirdly, a majority of the critics of capitalism envisioned various kinds of planned society. Theoretically many of them were influenced by Thorstein Veblen's critical view of modern capitalism with a tendency toward technocracy. George Soule, Stuart Chase, and Rexford Tugwell, one of the radical New Dealers, were among them. Planning offered a "new frontier" for them as an alternative for the geographic frontiers that had gone by the end of the nineteenth century. Even Gerard Swope, president of General Electric, presented a famous "Swope Plan" in 1931 whose organizational basis was the trade associations.

(2) The fourth vision, monetaristic solution of the depression, or monetarism as we call it, had far more profound impact on society than the above three. Irving Fisher of Yale University, a leading theorist on

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quantity theory of money of the early 1930s, had as his (Allen, 1977; p. 563):

> Fundamental premise and basis for all other analysis and policy prescription . . . this: money matters and matters most. He was, indeed, the first of the modern "monetarist", and much of the best current discussion has a decided Fisherian quality. The depression has been and the recovery will be (and, in due course, was) a monetary phenomenon.

We must get acquainted with the situation under Hoover to understand Fisher's position clearly. Herbert Hoover has often been cited as a champion of "laissez-faire capitalism" or "rugged individualism". Undoubtedly individualist as he was, he also recognized the specific role the federal government should play in the economic process. Hoover had served as a chairman of the President's Conference on Unemployment, which published "Business Cycles and Unemployment" in 1923. Influenced by the business cycle theory of Wesley C. Mitchell, the report considered economic activities cyclical and basically autonomous. Accordingly, *public work* (could) be used as a "balance wheel" to stabilize economic fluctuations without seriously impeding investment by private industries. On the other hand, *relief work* had been given minor role in the report (May, 1981; p. 69–72).

As the depression deepened beyond Hoover's expectation, the expansion of public works became more and more necessary. At this point, Hoover had a conflict with his own theory. Public works by the federal government must not increase to compete with private industries. Furthermore, as reduction in tax revenue (caused huge) deficits in fiscal 1931 and 1932. Hoover stressed "balancing the budget" as a positive requirement for promoting confidence in government and encouraging economic recovery. He thus felt obliged to take a deflationary course at the bottom of the depression, opposing any expansionist measure as inflationary in 1932. At the same time was American people's demand for inflationary policies reached its peak, and "more than 50 bills embodying various currency expansion proposals were introduced in the Senate and House during the Seventy-second Congress, from March 4, 1931, to March 4, 1933. (Crawford, 1940; pp. 17–18).

One of them was the Goldsborough Price Stabilization Bill which passed by the House by a vote of 289 to 60 on March 2, 1932, but was rejected by Senate Banking Committee later. Thebill's aim was to amend the Federal Reserve Act, so that the Federal Reserve Board and reserve banks could "take all available steps to-raise the present deflated wholesale commodity level of prices as speedily as possible to the level existing before the present deflation, and afterwards to use all available means to maintain such wholesale commodity level of prices." (U.S. House,

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1932; p. 1). The wholesale price level (1932 = 66) had to be raised to the 1926 level, and the official price of gold must be raised also. The three national farm organizations (the Grange, the American Farm Bureau Federation, and the National Farmers Union) and the American Federation of Labor supported the bill. Edward O'Neal, president of the AFBF, spoke at the House hearing (U.S. House, 1932; pp. 5–6):

> A dollar, which represented one-half bushel of wheat in 1919, represented a bushel in 1929, and in the early summer of 1931 it represented 3 bushels. Yet each person in this country needed his 4 bushels of wheat just as much one year as another . . . . The dollar fails to measure the value of wheat. It became a dishonest dollar . . . .
>
> Our honest dollar does not seek to fix prices. It seeks only to restore our general commodity price level to a basis comparable to the price level at which our enormous debts were contracted and to stabilize its value at that level.

Irving Fisher, leading advocate of the commodity dollar, testified at the hearing. The most important phase of the depression was "overindebtedness", he explained (U.S. House, 1932; pp. 350–351):

> Now, if we would add all the varieties of debts it is, I think, unquestionable that if we had the figures we would find that the indebtedness of the United States to-day is over $ 200,000,000,000.

The economic effects of the overindebtedness could be understood as a process of nine steps which the people, if they wanted to get rid of the trouble, were obliged to take: 1. liquidation of debts and distress selling at low price. 2. net contraction of currency. 3. fall in the price level. 4. increase of bankruptcies. 5. corresponding fall in profit. 6. shut down in industry, unemployment. 7. pessimism and distress, psychological consequences. 8. hoarding. 9. change in the rate of interest. (Ibid., pp. 352–362; Fisher, 1933; pp. 341–342).

Important was the fact that "every effort to pay debts will actually enlarge the debts, because it enlarges the dollar", and "there has been no liquidation since 1929. We are more in debt now than we were then". (U.S. House, 1932; pp. 362–363). *Reflation* was the solution to the problem: this was an inflation which could be justified by the preceding deflation. Fisher also recognized "a certain value in the gold standard", but he suggested reducing the dollar's gold content as the best way to raise wholesale prices.

The bill gained widespread support from the debt-stricken farmers of the Midwest. *Wallace's Farmer* (Des Moine, Iowa) maintained:

> Our monetary system needs . . . a major operation. (March 5, 1932). The principle of "reflation" with brakes set in advance

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> is more and more being recognized as sound. Even the larger bankers are weakening and coming one by one into camp. (March 14, 1932).

The Prairie Farmer (Chicago) spoke in the same way (February 6, 1932):

> What we need now is more money so that prices will go up. That is necessary in order that producers may have enough money left to buy with after they have paid their debts and interest and taxes.
>
> After that we need to have the supply of money kept in just the right relation to the need for it so that the average price level will not change. Then we can all go ahead and produce and exchange our products and be prosperous.

When Eugene Meyer, governor of the Federal Reserve Board, testified as follows, he undoubtedly represented the Hoover administration, which had been decidedly against the "rubber dollar" bill (U.S. House, 1932; p. 556):

> As an offhand opinion, I feel that the balancing of the Budget is becoming a fundamentally important factor in rebuilding confidence in business. I should be reluctant to see a very heavy expenditure which could not be paid for out of taxation at this time.... And I think inflationary devices which might be assumed to be beneficial are dangerous, because they might have a very different effect from what is expected.

An English editor who "wrote before the convention (of the two parties in 1932) had adopted their platforms that the campaign would be fought on the issue of deflation against inflation", (Seldes, 1933; p. 231) was correct in defining the atmosphere of this phase of the depression.

Farmers' Movements and the Agricultural Adjustment Act

(1) Even during the prosperity decade of the 1920s, many farmers complained that they had not shared fairly in the general boom. In 1932 when the depression hit bottom, the index of prices received by farmers went down to 43.9 (1929 = 100). Because of low income from farming and the sharp drop in land prices, numerous farmers faced bankruptcy, mortgage foreclosure, and liquidation of their livelihood. Mortgage foreclosure sales were concentrated in the Midwest, where independent owner-farmers had constituted a majority. Table 1 shows the rapid increase of foreclosure sales in the (especially West) North Central area during the depression. There, farmers' protest took various forms. In May 1932 angry farmers set up the National Farm Holiday Association in Des Moines, Iowa, and elected Milo Reno of the Iowa Farmers Union

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as its president. The FHA organized farmers' strikes in Iowa, Nebraska, Minnesota, and North and South Dakota in the summer of 1932. Two of their core demands were state moratoria to stop foreclosure sales and the immediate increase of farm commodity prices to guarantee them their *cost of production*.

TABLE 1

NUMBER OF FARMS CHANGING OWNERSHIP BY FORCED SALES PER 1,000 OF ALL FARMS, BY GEOGRAPHIC DIVISIONS, 12 MONTHS ENDED MARCH 15, 1931–34

	Delinquent taxes				Mortgage foreclosures			
	1931	1932	1933	1934	1931	1932	1933	1934
U.S.	7.4	13.3	15.3	11.1	18.7	28.4	38.8	28.0
N.E.	3.4	5.2	6.6	7.3	6.3	10.3	13.2	12.8
M.A.	4.6	5.6	8.7	8.2	9.2	12.4	19.6	18.0
E.N.E.	4.7	6.5	5.6	4.2	19.3	27.8	38.3	27.8
W.N.C.	5.5	8.7	10.5	6.5	25.8	43.8	61.5	44.4
S.A.	12.8	21.0	27.3	18.2	19.4	26.1	32.2	22.5
E.S.C.	10.0	26.0	27.1	20.2	15.9	24.6	36.4	24.7
W,S.C.	6.1	13.2	16.0	12.2	16.3	27.0	35.2	22.1
Mt.	13.8	16.5	19.2	15.4	22.6	27.0	33.6	28.7
Pac.	5.4	10.8	8.1	6.5	19.6	26.8	36.0	30.6

Source: U.S. Dept. of Agriculture, *The Farm Real Estate Situation, 1933–34* Circular ~~354. (Washington, D.C., 1935).

To have realized equal to cost of production in 1932, a typical farmer would have had to receive 92¢ per bushel of corn, 11¢ per pound for hogs, and 62¢ per pound of butterfat. Prevailing prices in June 1932 were: corn, 10¢ per bushel; hogs, 3¢ per pound; butterfat, 18¢ per pound. (Shover, 1965; pp. 38–39).

The anti-dispossession movement of the Midwestern farmers reached its peak during the winter months of 1932–1933. In many cases, farmers stopped foreclosure sales by group action. They were called "penny sales" or "Sears-Roeback sales", because in most cases the total bidding prices of farmers' possessions amounted to only a few dollars. Milo Reno organized a local council of defense in almost every county in Iowa. The council was "a body intended to adjudicate all disputes between creditor and debtor, acting outside the established legal system". (Dyson,

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1968; p. 131) *Prairie Farmer* reported (February 18, 1933):

> From all over the country come reports of farm sales that were not held.... The strong sentiment is developing throughout the country against foreclosure of farm mortgages under present conditions. In many cases committees of farmers, have told creditors that they will forcefully resist sales if they try to hold them.

In Wisconsin, the Wisconsin Cooperative Milk Pool organized milk strikes among dairy farmers in February, May, and October-November in 1933. "Road barricades, dumped milk, and tear gassing were a part of the strikes which centred in the eastern countries." (Hoglund, 1961; p. 28).

The FHA movement produced moratorium laws on the state level, and pressed the New Dealers to start (similar Federal) programs. But the production control idea, another core of Roosevelt's program did not come from the movement. M. L. Wilson, agricultural economist from Montana, developed the Voluntary Domestic Allotment Plan by 1932. "The method was production control and the goal was higher and more stable prices for the commercial farmer, the rural businessman". (Kirkendall, 1966; p. 24). Tugwell supported the plan, which he introduced to Roosevelt. Henry A. Wallace, secretary of agriculture, presented the plan before a conference of farm leaders in March 1933. The Grange and the AFBF agreed with the program, but the Farmers Union and the FHA opposed it. John A. Simpson, president of the Farmers Union, enthusiastically advocated the cost of production idea, opposing production control. He preached demand expansion by giving purchasing power to foreign as well as domestic consumers. Currency expansion through dollar devaluation and remonetization of silver would finally enable farmers to earn cost of production. Simpson stated at the Senate hearing (U.S. Senate, 1933; p. 115):

> The fundamental thing is that you should furnish the citizens of this country a medium of exchange that is not controlled by private individuals. You have got to come to that or none of these things will work.

"Cost of production" soon took the form of the Norris-Simpson amendment to the new Agricultural Adjustment Act, but it failed to pass. Instead, the Thomas amendment was attached to the Act, providing "for an expansion of Federal Reserve credit, issuance of greenbacks, change in the monetary standard and acceptance of silver in payment for foreign debts, and conferred legal tender power on all forms of currency". (Crawford, 1940; p. 43). If the President had used the power authorized in the amendment fully, currency in circulation could have doubled at that time.

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Thus it was no wonder that Roosevelt turned down the proposed stabilization agreement at the World Economic Conference in London in June 1933, giving a domestic price hike clear priority. Roosevelt declared (Crawford, 1940; p. 55):

> Let me frank in saying that the United States seeks the kind of dollar which a generation hence will have the same purchasing power and debt-paying power as the dollar we hope to attain in the near future. That objective means more to the good of other nations than a fixed ratio for a month or two in terms of the pound or franc.

The rhetoric was plainly monetaristic. Roosevelt chose the course of domestic recovery and he pursued the policy of purchasing gold at ever-increasing prices during the fall of 1933. Finally he devalued the dollar by 40 per cent, setting the price of gold at $ 35.00 an ounce in January 1934. Thus domestic equilibrium, with a managed currency system, was selected in sharp contrast to world equilibrium under the gold standard as sought by the Hoover administration.

(2) As the corn-hog program of the Agricultural Adjustment Administration was put into effect during the fall of 1983, the Midwestern farmers' strike movement gradually subsided. Lowell Dyson described the situation (1982; pp. 117–118):

> The administration dramatically flew corn loan forms from Washington to Iowa. Before the end of the month, the first farmer had cashed his check, and during the following month, millions of dollars descended like manna to guarantee the first merry Christmas in years. After a spring, summer, and early fall of floundering, the administration had within six weeks won the almost solid support of midwestern farmers.

The farmers aquired the benefit and loan payment, and they could also participate in the program through county committees. "Soon 1,450 county committees were operating in the wheat country and more than 4,200 throughout rural America". (Kirkendall, 1966; p. 92).

In the South, AAA's cotton acreage reduction program had a different effect. A planter rarely handed the fair share of the benefit payment to his tenants or sharecroppers. Furthermore, he secured a good monetary incentive to replace his tenants or downgrade them into farm laborers, with whom no benefit payments needed to be shared. Planters often evicted his tenants from their plantations. Under these circumstances, the Southern Tenant Farmers Union was organized by black and white sharecroppers in Arkansas in July 1934, chiefly to protest the New Deal cotton program and prevent eviction of sharecroppers from the plantations. But the tendency to replace men with machinery only accelerated

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on the fertile cotton plantations of the Mississippi Delta Under the New Deal.

The STFU movement disclosed the plight of sharecroppers in the South, and it pushed the federal government to investigate the situation and establish fairer policies. The movement strengthened such "radical" officials as Jerome Frank, Alger Hiss, and Francis M. Shea inside the AAA for a while, and it was functional in bringing about more equal treatment for lower-class farmers under the later New Deal. The Farm Security Administration, a partial answer, sponsored a number of programs for the rural poor.[2]

The Roosevelt Coalition

(1) Theda Skocpol and Kenneth Finegold (1982; p. 257) were right when they argued that politically the Agricultural Adjustment Act was a success, but the National Industrial Recovery Act was a failure. They pointed out:

> When the Supreme Court declared the first Adjustment Act unconstitutional, it was quickly replaced, whereas Title I of the NIRA was not reformulated after the Schechter decision of May 1935. In short, the early New Deal's agricultural program ended up being successfully institutionalized, but the industrial program did not. And the ulterior political consequences of the Recovery Act's failure and the Adjustment Act's success reverberated throughout the rest of the New Deal.

Origins of the NIRA had come from the three different cohorts, i.e., business, labor and government. Some big business leaders including Henry Harriman of the Chamber of Commerce, and Gerard Swope of the General Electric believed it necessary to regulate prices and production, thus eliminate cutthroat competition in order to bring economic recovery. Among others they wanted to lead industrial reorganization through their trade associations. New Dealers Raymond Moley and Hugh Johnson wanted to experiment their planning idea along the line of the War Industrial Board during World War I. And labor leaders had given their support for the thirty hour workweek bill to reduce unemployment and to protect labor standards. After all the NIRA became an "omnibus" law and the National Recovery Administration was set up. The basic function of the "code of fair competition" which was contracted between the NRA and each industry was a recession cartel sponsored by the government. The code provided minimum wages, open price

[2]For the STFU and its cooperative farm movement, see Grubbs (1971), and Akimoto (1978 and 1982).

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systems, marketing regulations, production control, and minimum labor standards. The section 7(a) of the NIRA vaguely admitted labor's right to organize. Two important objectives, "profit for industry, and living wages for labor", were in a sense contradictory, and were difficult to achieve both.

The repeal of the NIRA resulted in the development for the two directions. First, the industrial planning faced a general feeling of disappointment, to say nothing of nationalization of basic industries which had been advocated by the progressives and the Socialists. The direct intervention of the federal government in industry had to be limited to the "sick" or "declining" industries such as coal or railroad. Secondly, labor movement gained strength and sprang up almost of a sudden because the leaders clearly recognized government support for their organizing effort. Additionally, workers suffered from the rising prices of commodities under the sanction of various codes. The management side responded with the "company union" strategy as an alternative for genuine labor union. Organized labor's response to the NIRA thus opened the way for the more complete legal guarantee of the government for the workers' right to organize, to bargain collectively, and to strike. Roosevelt signed the National Labor Relations Act (Wagner Act) in 1935. Table 2 shows how the number of strikes and workers involved increased abruptly after 1933.[3]

(2) As Samuel Lubell put it, "the submerged, inarticulate urban masses" became "the chief carriers of the Roosevelt Revolution". (1951: p. 29). The urban population was composed of two major social classes, i.e., blue-collar workers and middle class people (white-collar workers, small businessmen, school teachers, etc.). It was these people who made possible the reelection of Roosevelt with large plurality in 1936 presidential campaign (Eldersvelt, 1949; p. 1198) and who became the core of "the Roosevelt coalition". By the 1930s the massive wave of immigration which had characterized the labor history before World War I subsided,

[3]Contrary to the common assumption that the labor movement became active as the depression deepened, organized labor remained defensive at that time, mainly because mass unemployment deprived the financial as well as the spiritual strength of them. See what David Brody pointed out (1980; p. 131):

> In 1932 organized labor seemed nearly moribund. Membership was under 3 million, half a million less than in 1929, more than 2 million less than in 1920. The movement was nearly bankrupt of resources, and wholly so of ideas.

He also showed the other side of the coin (*Ibid.*, p. 76):

> But everywhere resentment was silently building up. When it burst out under the aegis of the New Deal, the air would be filled with charges of inhuman speed-up, of ruthless rate-cutting, of rampant favoritism in the disposition of work. These grievances sharpened the edge of bitterness over the basic complaint of unemployment.

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TABLE 2

NUMBER OF STRIKES AND WORKERS INVOLVED

Year	Number of Strikes	Average for the period	Number of Workers involved in Strikes (thousand)	Average for the period
1927	707	744	330	311
1928	604		314	
1929	921		289	
1930	637	763	183	283
1931	810		342	
1932	841		324	
1933	1,695	1,855	1,168	1,251
1934	1,856		1,467	
1935	2,014		1,117	
1936	2,172	3,074	789	1,127
1937	4,740		1,860	
1938	2,772		688	
1939	2,613		1,170	

Source: U.S. Dept. of Labor, Bureau of Labor Statistics, *Strikes in the U.S. 1880–1936* Bulletin # 651, p. 41; Woytinsky, W.S. et al. *Employment and Wages in the United States* (1953), p. 655.

and "the immigrants had made considerable progress toward Americanization. But the key to the change was the rise of a common class consciousness among all workers. The depression, in making all workers more aware of their economic interests, suppressed their racial and religious antagonisms". (Lubell, 1951; p. 46).

Also included in the Roosevelt coalition were farmers who benefited heavily by production control and other programs of the AAA, intellectuals, some of whom became involved in the administration as "service types", (Kirkendall, 1966; p. 5), and blacks whose problems as such are beyond the scope of this paper. By 1936, the Roosevelt coalition could even attract most former third party followers, because it became increasingly difficult for them to find any difference in class composition between the Roosevelt coalition and that of third parties.

The Economics of the New Deal

If we are to reconstruct the economic theory which was supposed to have sustained the New Deal as a system of economic policies, the simplest phrase which exemplifies its characteristics can be "a system of consumption".[4] To summarize the economics of the New Deal as such

[4]Persia Campbell cited Roosevelt's speech at Orglethorp in May 1932 in her work (1968; p. 17):

I believe we are at the threshold of a fundamental change in our popular

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may be understood from four mutually related aspects:

1. Understanding of the depression chiefly as a consequence of underconsumption.
2. Preference for domestic equilibrium over an international one.
3. Government spending with its emphasis on relief work as a positive factor for recovery.
4. Redistribution of national income as a combined effect of spending and taxation.

Though these four themes were interrelated, they can be examined individually.

(1) New Dealers Harry Hopkins, director of the Works Progress Administration, Frank Murphy, and Henry Wallace analyzed the depression as "underconsumption", as Theodore Rosenof put it (1975; p. 40):

> The inequitable distribution of purchasing power lay behind the depression, the thesis ran; consumptive capacity, resulting in "overproduction", lessened employment, falling demand, and a downward spiral. The key to recovery was increased mass purchasing power.

Hopkins said, "I'm committed . . . to the purchasing-power theory and belief in . . . better distribution of income". The measures with which this administration chose to fight depression were mainly directed toward one central . . . purpose. That was to fortify consumer purchasing power". (*Ibid.*, p. 40).

Two major Acts used the word "purchasing power". The NIRA declared it to be "the policy of Congress . . . to increase the consumption of industrial and agricultural products by increasing purchasing power . . ." and the AAA was "an act to relieve the existing national emergency by increasing agricultural purchasing power . . ." (Chamberlin, 1934; p. 22).

Keiji Ohara (1951, pp. 271–275) paraphrased the typical underconsumption theory as follows. Several studies by the Brookings Institution showed that only about two-thirds of the nation's production

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economic thought, that in the future we are going to think less about the producer and more about the consumer.

"The system of consumption" does not necessarily mean that the consumers' interest had been well-represented in the New Deal, as Campbell concluded (*Ibid.*, p. 262):

> The New Deal consumer agencies, it is true, had little influence on the course of events. But this was due not to the unreality of the consumer interest, nor its want of significance in promoting the general welfare, but to the lack of bargaining strength in the total consumer position.

She also recognized that "the final responsibility for promoting the consumer interest must rest with organized consumers supported by a consumer-minded public". (*Ibid.*, p. 273).

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facilities had been in operation during the prosperous 1920s. The underlying cause of the decade's economic imbalance lay not in input factors such as raw materials and labor, but in distribution. Popular needs were far from satisfied, because income (especially that of lower-class people) was insufficient. On the other hand, the ratio of savings to income was relatively high and was increasing. As a result, the market could not become big enough to absorb all the commodities which could be produced.

(2) The second norm of New Deal economics was its appreciation of domestic equilibrium. Among others, Henry Wallace developed an interesting argument in his *America Must Choose*. He suggested three alternate ways in the pamphlet (Wallace, 1934; p. 1). "There are at least three paths: internationalism, nationalism, and a planned middle course". Nationalism means "the withdrawal from cultivation of over 50 million acres of fairly good farmland, and face the consequences of all the social and economic dislocation which are bound to ensue". And in choosing the internationalism, "we must drastically lower tariffs and reorganize industry, so that we can receive from abroad another billion dollars worth of goods each year". "The planned middle course I propose as a basis for present discussion is only half-way between these two extremes: a line of march along which we would lower tariffs enough to bring in another half-billion dollars worth of goods annually, and permanently retract agricultural land some 25 million acres". (Ibid., p. 27). And his argument went beyond the trade policy level (Ibid., p. 30):

> Now, it is this discrepancy between production-power and domestic consumption which makes all nations wish to sell more abroad than they buy abroad, and gives rise to economic nationalism in its most determined forms. There can be little doubt that the trouble traces in whole or in part, to a maldistribution of income. That doctrine is implicit in our New Deal, which seeks to compensate for falling markets by bringing up purchasing power at home".

Actually, as we have seen above, the New Deal chose a more nationalistic path than the "planned middle course" of Wallace, only to intensify the world tendency toward bloc economy. It is worth noting that secession from the gold standard meant the first step toward domestic equilibrium, because under the managed currency system the state could considerably enlarge its discretion over monetary and financial programs. It was surely no accident that the Hoover administration laid stress on the international solution to the depression by sticking to the gold standard. Later, however, it became necessary for Roosevelt to modify his course partially by the Reciprocal Trade Agreement Act of 1934.

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(3) The third norm concerned government spending. It is well-known that there were two streams of thought about financial policy during the New Deal period. Secretary of Treasury Henry Morgenthau, Jr. represented the balanced budget advocates, and Marriner S. Eccles, chairman of the Board of Governors of the Federal Reserve system, represented the spenders. Eccles' standpoint innovated the New Deal spending theory, and Roosevelt finally adopted it after the severe recession of 1937–38.

Eccles claimed in February 1935 that "the inherent instability of capitalism may be corrected by conscious and deliberate use of three compensatory instruments, taxation, varying governmental expenditures, and monetary control". If they fail, then you will have to accept, "direct controls in every important sphere of economic activity". (May, 1981; pp. 83–84). He thought that the deficit would be absorbed by paying off bonds when "the national income" grew big enough to afford it.

One of the important causes of the 1937–38 recession was Roosevelt's decision to reduce spending and balance the fiscal 1938 budget. And a critical debate took place around the measures to cope with the recession. Eccles gave three recommendations to the President in his memorandum of October 1937. First, the administration "should seek to dispel present pessimism and to create a favourable psychological background for the prosecution of its specific measures". (May, 1981; p. 117). Secondly, he thought it imperative to maintain or, if possible, to increase expenditures in the next six months in order to sustain consumer buying power. Thirdly, he proposed to stimulate private investment activities in such areas as residential buildings. In April 1938 Roosevelt finally admitted that the recession had been caused by failure of purchasing power to keep pace with production and by an undue rise in the prices of many commodities. He proposed to boost relief and public works, and stated that the federal debt "can only be paid if the Nation obtains a vastly increased citizen income". At this point it was clear that the President adopted the logic of the spenders. (Ibid., p. 138).

Eccles further pointed out in June 1939 (Weissman, 1940; p. 268):

> With the slower tempo of our national growth, and being now a creditor and not a debtor nation in need of capital, we must devise means to enlarge the domestic market for our products. To do this we need a better balanced distribution of our national income, which in turn involves the steady channeling of additional funds into the hands of those at the lower end of our national scale.

The Roosevelt administration laid extreme stress on relief works by such agencies as FERA, WPA, CCC, and NYA in comparison with public works by PWA and TVA, etc. The former accounted for 26.7 per cent of

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all federal expenditures in fiscal 1933–40, while the latter amounted to 11.1 per cent. From the standpoint of consumption advocates, relief work was ideal because almost all employee pay could quickly flow into the stream of consumption. Furthermore, as in the case of WPA, a project had to employ as many workers as possible with minimum cost for the production facilities without competing with private industries.

(4) In 1938 a group of young economists of Harvard and Tufts published a book under the title, "An Economic Program for American Democracy", which marked a historically significant episode as May described (1981; p. 147):

> The press shortly began to interpret it as a key document for those wishing to understand the new direction in the Administration's economic philosophy. Henry Paynter, of Washington, D.C. *Star*, reported the widely-held belief that *An Economic Program for American Democracy* "represents the first authentic attempt to tell compactly and in simple language the complete economic and social ideology of the 'New Deal'."

The book concisely unified the theory of "the system of consumption", emphasizing the redistribution of national income as a goal of sound economic policies; it stressed the role of purchasing power of low income people, similar to Eccles' view. Even in 1929, the book maintained, "Had the then-existing government been looking for ways to maintain full employment of the country's resources, there was plenty of opportunity for expansion in meeting the consumptive needs of the mass of the people", because "there can be no doubt that the lower-income families in the country need more money to spend on ordinary articles of consumption". (Gilbert et al, 1938; pp. 45–46).

It was necessary to redistribute national income through government expenditures and taxation. On the expenditure side the authors advocated: (a) Old-age benefits. (b) Aid to education and health. (c) Workman's compensation and social security .services. (d) Unemployment compensation and relief. (e) Wage and hour standards. On the taxation side they advocated: (a) The effective taxation of undistributed corporate earnings. (b) The corporate elimination of tax-exempt securities which now provide means of escaping the progressive features of the income tax law. The long-range investment program included: (a) Rehousing and rebuilding of America (b) Conservation of natural resources and flood control. (c) Education and health. (d) Government's take over of the railroad. (Ibid. pp. 49–62).

To summarize, the New Deal began with transformation toward a managed curernCy system inspired by the farmers' revolt and their "monetarism" under the Great Depression; experiencing the success and failure of thc AAA and the NIRA, it gradually merged into the path of

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redistribution of national income through relief and public works, taxation, and price support for farmers.

During the process the economic position of workers gained strength through modern labor legislation, which materialized as a response to the labor movement. Supported by most urbanites, the Roosevelt coalition was formed in 1936, offering a basis for further redistribution of national income, and therefore toward a system of higher consumption.

The federal government, or the state in general, appeared for the first time in American history as a chief protector of both capital and labor. And before long the state would accept the responsibility for full employment and a decent level of living for all the people. On the eve of World War II the New Deal as a system had infinitely approached the system of consumption in contrast with the system of production (or acumulation) which had been embodied in the Nazi regime. German economy quickly recovered from the trough of the depression under Hitler's intensive public works (and later rearmament) programs, achieving full employment as early as by 1936. Dissolution of Weimar Republic reflected among others (especially heavy) industrialists' strong desire to reduce high cost of social policies. Thus the Republic as a premature mass-consumer society could not develop into a full-fledged welfare state in the 1930s.

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FISCAL POLICY AND ITS CONSEQUENCES ON CURRENT ACCOUNT IMBALANCES: AN EXPLORATORY EMPIRICAL TEST*

SOON-WON CHUNG

Hyundai Research Institute, Seoul, Korea

A study concerning the debt management of developing countries in the Asian-Pacific region is highly significant. Since these nations grappled an enormous 58.3% of total external outstanding debt as of the end of 1986 among all developing countries, their management of the huge debt is a fair concern in the world financial market. The purpose of this study is to expose the influence of government fiscal policies on a nation's external debt and to provide policy lessons for economies that need to control the nation's borrowing through fiscal policy measures.

1. Importance of Fiscal Policies

The significance of macroeconomic policies of debt-ridden economies was surely recognized after experiences of debt servicing disruption during the period of 1982 to 1983. According to several recent papers, the real cause of the debt crisis stemmed from previous domestic macroeconomic policies. That is, macroeconomic policies at that time made economies more vulnerable to exogenous factors, causing "capital flight" to obtain higher rates of real interest, particularly out of Latin American countries. Furthermore, as Enders and Mattione (1984) point out, from 1978 to 1982 the adverse impact of fiscal deficits on the current account was more severe than that of oil shocks in Latin American debtor countries. Public sector deficits were, on the average, 7.83% of GDP, while costs imposed by external shocks were equal to 3.31% of GDP.

2. Relationship between Fiscal Policies and External Debt

In order to gauge the relationship between external debt and fiscal policies, we could use an identity expressing the current account deficit, which can be broken down to the investment-savings gap in the private sector and the fiscal deficit. During the period of 1976 through 1982, it would be found that for most large debtor economies a large fraction of current account deficit was associated with the fiscal deficit. The relationship might not be a one-to-one mapping, indicating the possible repurcussions of public deficits on private ones.

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3. Model Structure

To verify empirically the hypothetical relationship between fiscal policy and its consequences on current account imbalances and external borrowing, a theoretical framework for simulation was extended from Dornbusch (1983) and Razin (1984) by incorporating a government budget constraint in a two-period, two-goods model and the direct interplay of utility function between public goods and private goods.

In the model, the household's problem is to maximise its total utility by choosing the most preferred pattern of consumption temporally or intertemporally. Meanwhile, the firm must decide how to draw its current maximum profit by properly allocating its production capacity between the traded and home goods sectors. The differentiation of planning horizons facing consumers and producers exploits the potential asymmetry in the stream of expenditure and receipts for the household.

Upon the assumption that government spending is wholly financed by income tax within two periods and that it consumes home goods only, any changes in government spending might disturb the market. Since public goods are not perfect substitutes for private goods, an increase in government spending results in excess demand for home goods. This will induce a rise in the relative price of home goods. The change in the relative price will affect asymmetrically the demand and supply side of the economy. The supply-side adjustment could alleviate the home-goods inflation pressure. Moreover, the increase in the first-period relative price of home goods, given the second period price, reduces current inflation, causing the home real interest rate to rise. The extent to which an increase in the home real interest rate would crowd out current consumption depends upon the degree of the household's inter-temporal substitutability. The current trade balance is then affected and, therefore, external borrowing will change. The necessity of external borrowing is thus revealed in the consumer's preference, which is characterized as either (1) smoothing consumption over time, or (2) switching purchasing power from one period to another.

4. Assumptions and Results Relevant to Measuring Parameters

The model's parameters used in the simulation are obtained through econometric estimates. Since the whole model is written in a complex non-linear form, a few equations from the model are carefully selected and linearized for the econometric estimates. Data for nontraded goods are not published and thus the generation of such data was very important for simulation. In this study, the share of traded goods is obtained by two steps. First, the share of agriculture, mining, quarrying and manufacturing in gross domestic product is obtained and then it is modified by accounting for the amount of trade imbalance. The construction of sepa-

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rate series for the consumption of traded and nontraded goods is then obtained by disaggregating total consumption weighted by the time-varying composition. Whereas, the actual construction of the relative price of nontraded goods in terms of traded good is obtained from the price deflator for GDP divided by the export price index.

To estimate the level of substitutability of public spending for private spending, we postulate that an increase in government spending raises aggregate demand proportionally by one minus the extent of substitutability. Thus the increase could boost home goods inflation so much, thereby raising the home real interest rate, and reducing consumption of private goods. A point estimate for the substitutability of public spending for private consumption was obtained by solving a simultaneous equation, which consisted of the Euler equation for optimal consumption flow and two auxiliary equations for predicting the current level of relative price and also the current level of government spending. The econometric estimate shows .3654, .5684, .8798 for Korea, Mexico and Thailand respectively. This indicates that government spending in Mexico and Thailand substituted for private spending to a higher degree than in Korea.

Based upon the measured level, we estimated the extent of price elasticity in the supply of home goods and the degree of the household's intertemporal substitutability. Solving the Euler equation and the clearing condition for the home goods market simultaneously subject to one identity to predict the home real interest rate, we obtained the point estimates for intertemporal substitutability in consumption was: −1.5501 for Korea, 2.2620 for Thailand, and 3.1978 for Mexico. Also the measured price elasticities of home goods supply indicate 3.0221 for Korea, 1.6151 for Thailand and 2.6359 for Mexico. The negative value of Korea violates an assumption about the concavity of the utility function. This indicates that an increase in the home real interest rate relative to the discount rate may motivate people to raise current consumption relative to future consumption. This means if the rise in the home real interest rate increases a household's wealth significantly, then current consumption would be expected to increase. In this case the income effect dominated over the substitution effect, which this model relies upon theoretically.

5. Cases of Policies Examined

From the mode of historical simulation, we obtained a simulated series for trade balance and then used this for the following policy simulations as a benchmark. By changing either the extent of substitutability between public goods and private goods or the level of government spending, we examined the economic consequences on the balance of trade and checked how the size of the model parameters influenced the extent of trade imbalance.

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6. Consequences of Changes in the Substitutability of Government Spending for Private Consumption

Given government spending, it is found that an increased value of the substitutability of government spending for private consumption would not always reduce deficits in the trade account. A mild decrease in government dissipation might instead raise the trade deficit. This episode is evident in both major borrowers, Mexico and Korea. In these countries, only a large improvement in the substitutability could lessen the aggregate deficits of the balance of trade for all periods. But in Thailand, even a minor improvement reduced the aggregate deficit which is summed over the whole period.

In fact, an increase in the value of the substitutability, given government expenditure, reduces the expansionary effects of government spending on aggregate demand, There would also be a rise in the effective consumption of households. Given their budget constraints, they could raise their consumption expenditure of private goods since their effective consumption of home goods increased beyond the initial equilibrium level. This may be a possible explanation for the mild increase in the relative price of home goods and also for widening trade balance deficits at the same time as there was a moderate improvement in the substitutability of government expenditure for private expenditure.

Mexico exhibits larger trade deficits relative to Korea and Thailand. The only possible explicable parameter for this case is the extent of the share of traded goods consumed. The higher the share, the smaller the inflationary effect on the home goods market as a result of changes in domestic fiscal policy. Mexico's share of home goods consumption is greater than that of the other countries.

7. Consequences of Government Spending Upsurge on the Trade Balance

It is found that an increase in government spending financed by future taxation by the same rate over all periods would definitely reduce the trade balance deficit and thus the need for borrowing. This holds for the three countries.

Given a substantial degree of intertemporal consumption substitution in the countries, it is also found that a temporary increase in government spending in a certain year would not result in a trade balance surplus even though it might raise the home real interest rate. For instance, an increase in government spending by 5% in 1977 in units of 1980 per capita GNP would have reduced 1976's trade deficit by 3.9% for Korea; 1.3% for Mexico, and 0.5% for Thailand, and increased 1977's trade deficits by 3.4% for Korea; 1.6% for Mexico; and 0.3% for Thailand. This is nothing but in line with consumption smoothing, where the size of the substitutability is less than the unity. The increase in government spend-

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ing expected in 1976 might have induced households to postpone this consumption of traded goods for the purpose of intertemporal consumption smoothing and thus contributed to an improved balance of trade position in 1976.

According to this empirical study, we could draw an upshot that households can only transfer their purchasing power intertemporally with a relatively large degree of substitutability.

In the case of temporary fiscal expansion, it is concluded that changes in government spending have a greater effect on the trade balance in countries were the substitutability of government spending is low. This result could be aggravated if the share of home goods consumed is high in the relevant economy.

8. Implications of Capital Flight

Capital flight seemed to explain very well why Latin American countries faced the risk of default in 1982 and 1983, while Asian countries did not, even though the latter had larger trade deficits compared to the former.

The size of the adverse impact of fiscal policies is positively related to the share of home goods consumed, not to the proportion of the home goods industry in gross domestic product. With a larger share of home goods consumed, changes in fiscal policy might elicit larger variations in the home real interest rate away from the world level. This might provide incentives for capital flight.

9. Lessons for Policy Maker

From this experiment, policy coordinators must pay attention to their household consumption patterns over time and the size of home goods market of which price mechanism is isolated from the world market. Particularly, fiscal policies disregarding several parameters mentioned above at the time of their execution could bring great adverse impacts to the nations' external debt position especially in the cases in which external shocks affect the domestic economy. On the contrary, the full recognition of such parameters could alleviate the need for borrowing occasioned by the external shock through appropriate changes in fiscal policies.

This study exhibits the usefulness of fiscal policy for managing a nation's debt if properly managed in developing countries. Of course, this does not mean that macroeconomic policy measures are unique solutions for our current problems regarding the burgeoning outstanding debt of the developing countries in the Asian-Pacific region. But this implies that macroeconomic policy performance must be strongly considered under the acknowledgement of its influences on a nation's debt position.

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THE SIMULATION MODEL

A. The Household

(1) $C_i = (C_i^T)^a (C_i^N + kP_i^{-1}G_i)^{1-a} \qquad i = t, t+1$

(3) $C_t^N = P_t^{-1}\left\{1 + (1 + r_t^*)^{-1}\left(\frac{1 + r_t^*}{1 + d_t}\right)^{1/s}\left(\frac{P_t}{P_{t+1}}\right)^{(1-a)(1/s-1)}\right\}^{-1}$

$\times \Big[(1 - a)\{Y_t - T_t + (1 + r_t^*)^{-1}(Y_{t+1} - T_{t+1})\}$

$- k\left\{a + (1 + r_t^*)^{-1}\left(\frac{1 + r_t^*}{1 + d_t}\right)^{1/s}\left(\frac{P_t}{P_{t+1}}\right)^{(1-a)(1/s-1)}\right\}G_t$

$+ k(1 - a)(1 + r_t^*)^{-1}G_{t+1}\Big]$

(4) $C_i^T = \frac{a}{1 - a}(P_i C_i^N + kG_i) \qquad i = t, t+1$

(6) $C_{t+1}^N = \left(\frac{1 + r_t^*}{1 + d_t}\right)^{1/s}\left(\frac{P_t}{P_{t+1}}\right)^{1/s - a(1/s-1)}(C_t^N + kP_t^{-1}G_t) - kP_{t+1}^{-1}G_{t+1}$

B. The Firm

(7) $Y_i^N = (bP_i)^e \qquad i = t, t+1$

(9) $Y_i^T = q_t L_i - (bP_i)^{e+1} \qquad i = t, t+1$

(11) $Y_i = P_i Y_i^N + Y_i^T \qquad i = t, t+1$

C. Equilibrium Condition for the Home Goods Market

(13) $P_i = \left(\frac{1 - a}{a}\right)^{(a/a+e)} b^{(-1/a+e)} C_i^{(1/a+e)}$

$\times \left\{1 - (1 - k)\frac{P_i^{-1}G_i}{Y_i^N}\right\}^{(-1/a+e)} \qquad i = t, t+1$

D. Balance of Payments

(15) $B_t = P_t C_t^N + C_t^T + G_t - Y_t$

(16) $B_{t+1} = -(1 + r_t^*)B_t$

E. Government Sector

(17) $T_{t+1} = (1 + r_t^*)\left(G_t + \frac{G_{t+1}}{1 + r_t^*} - T_t\right)$

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NOTES

1. Definitions of Variables

$C^T(C^N)$	consumption of traded (home) goods
C	an index of consumption flow
P	relative price of home goods
G	government expenditure
T	fiscal revenue
$Y^T(Y^N)$	output of traded (home) goods
Y	gross national product
L	labor force
B	trade balance
r^*	world nominal rate of interest
d	discount rate

2. Parameters

a	proportion of traded goods consumed
k	degree of substitutability of public goods for private goods
$1/s$	intertemporal degree of substitution in household's consumption
b	constant ($b < 1$)
q	output shift parameter
e	price elasticity of home goods supply

COMPARISONS OF PARAMETERS BETWEEN LATIN AMERICAN AND ASIAN COUNTRIES

	$1/s$	k	a	e
1. *Latin American Countries (selected)*				
Brazil	−.6570	.6541	.3368	.0578
Mexico	3.1978	.5684	.4021	2.6359
Venezuela	−1.8142	.7149	.2832	1.3923
2. *Asian Countries (selected)*				
Korea	−1.5500	.3653	.6064	3.0211
Philippines	.5924	.7564	.5530	.4024
Thailand	2.2620	.8798	.5314	1.6151

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Note: Econometric estimates of parameters are based upon equations (10), (12) and (13).

$$\left.\begin{aligned}
\log C_t &= \mu_1 + \mu_2 \log C_{t-1} + \mu_3 \log (1 + r^*_{t-1}) + \mu_4 \log P_{t-1} \\
&\quad + \mu_5 \log G_{t-1} + \mu_6 \log P_{t-1} + u_t \\
\log P_t &= \alpha + \beta \log P_{t-1} + \beta(1 - k) \log G_{t-1} + \gamma \log C_{t-1} + v_t \\
\log C_t &= \phi + \phi \log G_{t-1} + \epsilon \log P_{t-1} + w_t
\end{aligned}\right\} \quad (10)$$

$$\log \left(\frac{C_{t+1}}{C_t}\right) = \xi_0 + \xi_1 \log R_t + u'_t \quad (12)$$

where $\xi_0 = -1/s \log (1 + \alpha)$, $\zeta_1 = 1/s$, $R_t =$ home real interest rate

$$\log \left(\frac{P_{t+1}}{P_t}\right) = \eta_0 \log \left[\begin{array}{c} 1 - (1 - k) \dfrac{P^{-1}_{t+1} G_{t+1}}{Y^N_{t+1}} \\ \\ 1 - (1 - k) \dfrac{P^{-1}_t G_t}{Y^N_t} \end{array}\right] + \eta_1 \log \left(\frac{C_{t+1}}{C_t}\right) + v'_t \quad (13)$$

u_t, v_t, w_t, u'_t, v'_t are all white noise (assumed).

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INDIAN JOINT VENTURES IN THE CONTEXT OF NEW INTERNATIONAL ECONOMIC ORDER

J. C. SRIVASTAVA

Joint Secretary, Federation of Indian Chambers of Commerce and Industry
Federation House, Tansen Marg, New Delhi-110 001

I. World Economic Scenario

The world economy has not yet come out of the woods. Many developing countries—as also a few developed ones—have been experiencing either decelrating or slow growth rates. Stagflation, growing unemployment, increasing trade barriers—several in invisible forms—heavy debt burden, deteriorating balance of payments, slow movement of capital are the major problems confronting the world economy.

Developed countries, because of their resourcefulness, stage of development and command over international movement of capital and technology, are, no doubt, relatively better placed to face the situation than their less developed counterparts where each bottleneck gets reinforced, giving rise to many socio-economic tensions.

Many developing countries, as a result, are already reeling under the pressure of heavy debt burden, affecting the very process of their development. The demand for many products—specially the import demand for capital goods—have either been shrinking or rising marginally which has its own chain reaction on income and employment of developed countries themselves. In short, a vicious circle has set in motion from which economies of both North as well as South are finding it difficult to come out.

A new international economic order, where developed and developing countries work in harmony and in close cooperation with each other has become urgent and imperative. This calls for global economic reforms—in the areas of trade, flow of funds, technology transfer and so on. While developed countries have to play a crucial role by opening up their markets and enlarging the scope of aid, the developing countries cannot absolve themselves of their responsibility of reorganising and reshaping their own economic management system, drawing more on the resources and experience of each other rather than looking always Westward. *Inter se* South-South Cooperation has become *sine-qua-non* for mitigating trade and development problems. In fact, this is the first pre-requisite.

Some of the developing countries are in a position to contribute their mite and participate in the development programme of their co-developing counterparts. India is one of them which is endeavouring to share its experience of development through joint ventures, technical cooperation and offering consultancy services on mutually advantageous terms.

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Before we analyse India's participation in projects abroad, the rationale of such an effort ought to be understood and underlined.

II. India as Partner in Development of the Third World

For several reasons, historical and otherwise, most of the developing countries, if not all, are making sincere efforts to lessen their dependence on erstwhile super-powers diversify the sources of supply of capital, technology, goods and services. They are increasingly becoming selective even with regard to foreign investment or collaboration and are not very keen to fall back upon the multinational corporations (MNCs) of the West. Notwithstanding the competence and ability of the MNCs to combine the use of internationally mobile and immobile factors of production effectively, the socio eoonomic cost of MNCs investment in the developing countries is considered very high. It is often feared and not without justification, that larger involvement of Western companies (MNCs) may lead to 'gradual erosion of control of the local economy', give rise to 'monopoly profits' bearing no or little relationship with actual cost of production and cause eventual repatriation of scarce capital in the form of profits, royalties and technical know-how charges. Moreover, the complex and capital intensive technology which most of the Western companies offer is not always appropriate to the labour surplus and capital short developing economies. The question of ownership or management control is yet another major controversial issue. MNCs generally resist majority shareholding by the local partners (The dilution clause of FERA has largely been criticised on this ground). Many developing countries have accordingly started looking out for alternatives.

India is one such country which can provide a fillip and make a significant contribution. In fact, India, which has become a third largest reservoir of technical manpower, sixth top nation in space and nuclear research, nineth leading producer of pig iron, ferro alloys and manganese and one of the world's major manufacturers of capital goods, is in a position to meet the varied developmental needs of the 'South'.

What is more, with a country like India as a stand-by, better terms from the MNCs themselves, can be negotiated.

India, in the course of nearly four decades of planned development, has evolved a new technology, popularly known as intermediate technology, relatively labour intensive and easier for adoption. It is therefore apt and well suited to the developing economies. The efficacy and relevance of Indian collaboration is now getting well established for it helps maximise the use of 'scarce capital and abundant labour' which characterise most of the third world economies. It is mainly for this reason, many of the Indian ventures have been proved to be economically viable and commercially competitive.

It has been empirically proved that 'LDC firms-specially Indian firms-

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often use efficient technology, operating at cost below the theoretical minimum cost and produce inexpensive, uniform quality and undifferentiated products using technology appropriate to the local factor endowments[1]. It must, however, be clarified that India's intermediate technology is not the "lowest cost technology" but it definitely enjoys a relative cost advantage at a low volume of production—the volume often required and indeed prefered, by many developing countries. Highly advanced technology of the West will have comparative advantage only at a high level of production which may not always go well with a small size of the market and low income level of many of the developing countries. In case of such industries as textiles, for example, Indian entrepreneurs have an edge because while many Western and Japanese companies can install large size production plants for just one variety of yarn, Indian firms can install, within the same capital investment, small units manufacturing different varieties of yarns[2]. In relatively small but fussy markets of Afro-Asian countries this makes a lot of difference in terms of viability, utilisation, product mix and demand of the local population. It is primarily for this reason India's intermediate technology has been accepted as an "appropriate technology[3]" for relatively less developed countries of Africa, Asia and Latin America.

III. Indian Ventures Abroad: Present Position

Presently*, there are 180 collaborative projects operating in about 35 countries—developed as well as developing. Of this 152 joint ventures, with Indian investment amounting to Rs. 968 million have already gone into production and the remaining 28 with Indian equity holding of Rs. 170 million are in various stages of implementation.

Most of the Indian projects (82 per cent) are in developing countries of which South and South East Asia account for the major bulk (51 per cent) followed by Africa (18 per cent), West Asia (10 per cent) and Oceania (3 per cent). As many as 35 projects are in advanced economies of Europe and America.

More than 80 per cent of our projects, in operation, are in just 11 countries viz. Malaysia (17), Sri Lanka (16), Singapore (12), UK and Nigeria (13 each), Indonesia (11), Kenya and Nepal (8 each) and UAE and USA (7 each). The other countries where Indian joint ventures are in implementation are given in *Appendix I.*

There are quite a few wholly owned subsidiaries of Indian companies operating overseas. These are located mainly in UK (11), USA (9), West Germany (3), Switzerland (3), Hong Kong (2) and Singapore (2), Japan (1). Indian investment in these subsidiaries amount to Rs. 260 million.

*As on 31st December, 1988.

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Our projects in developed countries as well as wholly owned subsidiaries are largely in service sectors (such as hotels and restaurants), construction, consultancy, trading and marketing. A few manufacturing ventures-like rice milling and diesel engine plants in West Germany, rubber products in USA and steel wire ropes in Yugoslavia have also been taken on hand. The Indian ventures in developing countries, on the other hand, cover a fairly wide spectrum—ranging from traditional textiles to chemicals and pharmaceuticals, palm oil refining and fractionation, pulp and paper, glass and glass products, food products, leather goods, cement and a variety of engineering products including machine tools, steel, capital equipment, etc. A broad industry-wise break-up of Indian joint ventures, as obtaining by the end of 1987 is given in *Appendix II*.

The scope for venturing overseas is gradually getting widened and coverage enlarged. Several new non-industrial ventures have come up of late like marketing of readymade garments in Switzerland, air transport cargo service in UAE, general and life insurance business in Kenya, consultancy ventures in USA, Hong Kong, Malaysia and Nigeria, exploration of minerals in Nepal, tea blending and packaging in Singapore, book publishing and distribution in UK and real estate development and organisation of travels and tours in USA and Sri Lanka. Yet another project for fertilizers has been undertaken in Senegal in which the concept of buy-back has been given a concrete shape. India, as per the agreement, would be importing a major part of the phosphoric acid produced. India has also extended technical cooperation in several fields such as those for manufacture of reactive dyes in Argentina and for bicycles and parts in Guyana, Iran, Sudan, Tanzania, Zambia and also in Bangladesh.

Besides Indian firms have also won a number of high value project contracts some on turnkey basis. Such projects too are involved in wide ranging fields such as power generation and transmission, construction of ports, dams, airports, schools, houses, hospitals, petro-chemical complex, steel plants, etc.

Details of some of the project contracts secured by India in 1987 are presented in *Appendices III and IV*. The extent, diversity and geographical spread of our overseas projects (joint ventures as well as others) are indicative of the efficacy and competitiveness of the Indian collaboration and the confidence reposed by the recipient countries.

IV. Assessment of Indian Performance

No doubt, many and varied projects have been undertaken and quite a few have been executed successfully. The Pan African Paper Mill in Kenya, precision Instruments industry in Singapore, several edible oil refining plants in Malaysia and Rice Milling machinery unit in West Germany are illustrative examples of success stories which demonstrate

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effectively the enterprising spirit and capabilities of Indian entrepreneurs.

However, we have yet to go a long way to make our presence felt, make venturing overseas a very profitable proposition as also an instrument for building up our image and projecting the Indian economy in correct perspective. This has become essential for, many of our collaborative enterprises have not had a smooth sailing. Not all the projects initiated and approved by the Government of India and the countries concerned, have been implemented. More than 50 per cent of the projects sanctioned have remained unimplemented. Some projects have not gone off the ground. And quite a few—numbering around 100 or so—have been abandoned or Indian shareholding withdrawn even after the projects had gone into production. A number of ongoing projects even now are not free from hurdles and handicaps. Some are facing financial problems, some marketing constraints and some cost overrun and erosion in their return.

Why such a thing has come to pass? An objective analysis of the situation and remedial measures are urgently called for.

In respect of many joint ventures, it is true that Indian entrepreneurs had not done their preparatory work nor planned their projects properly nor indeed made a correct assessment of the viability of the projects in terms of cost, involvement and stake of local partners, sources of financing, marketability of the products and, over and above, ultimate returns. In some cases, no doubt, joint ventures sanctioned were taken mainly to make a name of the company or to enjoy the fringe benefits without realising the implications of non-implementation of the project successfully. Then a few lacked experience of functioning in a foreign environment which is at times entirely different from those obtaining in India. And when they confronted with tough competition—some even from giant multinationals, their confidence got shaken and, in the absence of sufficient protective mechanism, they withdrew from the project participation.

While these factors did, and even now do, effect the efficient running of the joint ventures, there are many other limiting factors on which Indian entrepreneurs have no or little control.

In many countries, for instance, it is not easy to locate a right partner, capable of raising sufficient fund for actual execution of the plant. Many projects, as a result, faced financial problems of a much larger dimension than what they had actually envisaged initially. The problem became more complicated owing to lack of adequate facility back home in India for cash remittances. No doubt a liberal attitude is now being taken towards financial participation, but only in selected cases, depending on the discretion of the authorities concerned. The expectation of quick repatriation of earnings and know-how fees back home often comes in the way of ploughing back the earnings, which at times, becomes abso-

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lutely necessary. Even expansion, decided by Joint Venture Board, call for prior approval by RBI.

Then a few countries have brought in changes in their investment policy, restricting operation of the plant by a foreign investor. In many countries increased shareholding and filling up of the key posts by the nationals (Bhumiputras in Malaysia for instance) is insisted upon irrespective of the resourcefulness or capability of the local partners. In some countries like Ethiopia, joint venture projects were nationalised. The Indo-Ethiopia textile unit, the oldest venture and a highly successful one is a case in point. Many a times, changes in demand pattern too had its adverse impact. Many projects, instead of earning, started losing. Some, as a result, had to sell their shares and ultimately abandon the projects.

Over and above, India's own overseas investment policy leaves much to be desired. It has not taken full note of the foreign environment. Apart from proccdural bottlenecks, there is no clear cut policy regarding import of machinery and equipment from the third countries to make the offer competitive. Nor there is any adequate facility for the Indian entrepreneurs to 'invest in a distribution system, develop a brand image or a new product, increase the market share and productivity'. And these are no less important in making the project viable and indeed successful.

Nevertheless, the cases of failure are not something unique for India or uncommon to the rest of the world. How many of the 10,000 foreign collaboration projects approved by the Government of India have fructified? If one makes a correct assessment one would be surprised to find that not even 40 per cent are in actual operation. This, however, does not absolve us from taking remedial measures to set things right and to see joint ventures, once approved, implemented and implemented to the satisfaction of the host country.

V. Promoting Ventures Overseas

The success as also failure of joint ventures bring into sharp focus some of the broad issues which require constant probing and introspection as much by Indian entrepreneurs as by those engaged in framing the policy and monitoring the performance of our projects abroad. The fact that several projects of varied nature have been undertaken in developed as well as developing countries is undoubtedly a testimony to the competence and capability of the Indian industrialists on the one hand, and relevance of our technology to the host countries, on the other. At the same time, the non-implementation of projects as also abandoning some of them even after having gone into production is a clear indication of the lack of foresight and preparatory work. Nevertheless it is quite clear that a careful planning of the projects is a must before our entrepreneurs plunge into venturing overseas. Equally important is the need

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to learn from our shortcomings and go in only with full preparation taking into account every pros and cons.

In this exercise the first pre-requisite is to make a realistic assessment of the market for the product involved, the resourcefulness of the local partner—specially his ability to raise funds—the competition faced by locally manufactured goods and their imported equivalents etc. In short, a fairly long term demand projection has to be made. It must be borne in mind that introduction of an altogether unknown local made brand is bound to meet with certain degree of consumer resistance.

Then, one cannot and should not take protection—tariff and otherwise—for granted. Most of the developing economies are slowly but steadily opening up and our projects and products have to compete on their own merit.

It is quite possible that small size of the markets of the developing economies (which is normally the case), may not warrant an efficient size unit. Some export outlets for products manufactured in such an enterprise have to be located. This should not be difficult if the project is well conceived and correct assessment made. For instance, the ASEAN countries cannot be viewed in isolation for setting up projects in any one of the member countries, but the ASEAN region as a whole has to be taken into account. Similarly, one ought to take an integrated view of a group of countries in Africa as also Latin America for determining the market potentials and size of the unit to be set up. This will help facilitate overcoming the marketing problem.

It would be advantageous if Indian entrepreneurs plan their collaborative enterprises, to the extent possible on a buy-back basis. In this way we will not only be making the projects effective and efficient, from the marketing point of view, but also be providing assured sources of supply of those products which we import in any case to meet our requirements. Since most of the developing countries facilitate and give incentive for export oriented projects, there is need to consider seriously for having this kind of mutually beneficial arrangements.

Another way to execute projects successfully—specially in developing countries—is by establishing tie-ups with firms of developed countries, to take up the projects jointly. For instance, many countries like Malaysia have planned for steel plants in cooperation with Japanese companies which at times use Indian iron ore. For this kind of projects, trilateral arrangements, with Indian company as one of the partners, could be visualised.

It is necessary that Indian enterpreneurs must venture abroad with a view to making a success of the project. Fringe benefits, which often occur through joint ventures, should not be uppermost in their mind. They should be guided more by their business acumen and must have a stake in successful operation of the unit. This can be brought if some

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element of selectivity is exercised in the choice of the firms taking up projects abroad. Such firms have sufficient experience as also finance and managerial resources to weather and, indeed recover from unforeseen situation and upleasant surprises. In a nutshell, the entrepreneurs must be prepared to withstand a tough and rough situation.

The Government policy should be re-shaped so as to become helpful and supporting rather than putting one stumbling block after the other. Our policies must have the requisite flexibility to enable our entrepreneurs to compete in an alien atmosphere where they, at times, come face to face with giant multinationals. We must concede that what we expect from foreign investors in India should be provided to the countries which host our projects. We cannot adopt two yardsticks—one for India and the other for abroad.

Since venturing abroad is a new experience for our entrepreneurs, their efforts ought to be reinforced with some support measures. For example, establishment of a unit abroad involves expenditure of a substantial order—before as well as after launching the project. Unless the required money is made available promptly and in time, Indian firms will remain relatively handicapped against their competitors. No doubt our Government now allows financial participation but on a selective basis. A more liberal and realistic approach is required. In fact financial participation ought to be considered important as it is invariably insisted upon, in the absence of which the project is liable to be treated as a tied venture and loses its credibility. To mitigate financial exigencies, inter-project transfer of funds, wherever necessary and feasible, be allowed. Indian joint projects should also have the freedom to earmark certain part of their earnings to provide built-in cushion to the project.

The promoters of joint ventures should also have the freedom to import from third countries, machinery and equipment required for the projects which are either non-available or not competitively available from indigenous sources.

The efficacy of joint ventures should not be judged merely on the basis of direct benefits like dividends earned and repatriated but also the indirect benefits which accrue through larger and continued export of machinery, components, services and so on. In this regard, it is worthwhile to note that Indian projects have been able to generate additional exports i.e. other than those contributed towards equity participation amounting to Rs. 220 crore by the end of 1988. This is not a huge figure but not a small achievement either. What is more, exports of engineering goods and services specially plants and equipment, consultancy services, etc. which account for a fairly large part of the total engineering exports have emanated largely from the ground work created by the Indian joint ventures and other projects abroad.

Thus, joint ventures have a key role to play in export promotion of

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Indian merchandise and services. This, however, is possible only through efficient and successful execution of the projects undertaken. And making a success of each joint venture is a collective responsibility of the Indian promoters as also of the Government.

Appendix I

GEOGRAPHICAL SPREAD OF INDIAN JOINT VENTURES ABROAD*

Region/Country	In Production	Under Implementation	Total
South East Asia	**60**	**3**	**63**
Hong Kong	3	—	3
Indonesia	11	—	11
Malaysia	22	2	24
Philippines	2	—	2
Singapore	14	—	14
Thailand	8	1	9
South Asia	**26**	**5**	**31**
Bangladesh	—	1	1
Nepal	8	3	11
Sri Lanka	18	1	19
West Asia	**16**	**2**	**18**
Bahrain	2	—	2
Oman	2	—	2
Saudi Arabia	4	1	5
U.A.E.	8	—	8
Y.A.R. (Sanna)	—	1	1
Africa	**26**	**6**	**32**
Egypt	1	1	2
Kenya	7	1	8
Mauritius	2	2	4
Nigeria	13	2	15
Senegal	1	—	1
Seychelles	1	—	1
Uganda	1	—	1
Europe	**20**	**7**	**27**
F.R.G.	2	1	3
Gibralter	1	—	1
Greece	1	—	1
Netherlands	1	—	1
Switzerland	1	—	1

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Region/Country	In Production	Under Implementation	Total
U.K.	11	6	17
Yugoslavia	1	—	1
Hungary	1	—	1
USSR	1	—	1
USA	6	1	7
Oceania	4	—	4
Australia	1	—	1
Fiji	1	—	1
Solomon Island	1	—	1
Tonga	1	—	1
Grand Total	158	24	182

*As obtaining on 31st December, 1987.

APPENDIX II

INDUSTRYWISE CLASSIFICATION OF INDIAN JOINT VENTURES ABROAD*

Sl. No.	Subject	In operation	Under Implementation	Total
1.	Light Engineering	20	3	23
2.	Textile and Allied Product	10	—	10
3.	Chemical and Pharmaceutical	19	4	23
4.	Oil seeds crushing and Palm oil refining	4	—	4
5.	Iron and Steel Product	10	1	11
6.	Pulp and paper	2	—	2
7.	Glass and Glass Products	2	—	2
8.	Food Products (including soft drinks)	4	—	4
9.	Commercial Vehicles	5	—	5
10.	Leather and Rubber Products	5	—	5
11.	Cement Products	2	1	3
12.	Trading and Marketing	14	3	17
13.	Hotels and Restaurants	17	3	20
14.	Engg., Contracts and Construction	10	5	15
15.	Consultancy	13	3	16
16.	Others (non-manufacturing)	3	—	3
17.	Others (manufacturing)	18	1	19
	Total	158	24	182

*As obtaining on 31st December, 1987.

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Appendix III

INDUSTRYWISE DISTRIBUTION OF PROJECT CONTRACT WON IN 1987

	No.	Value (Rs. Crores)
Construction	6	133
Power	1	2
Transport	11	25
Water and Sewerage Treatment Plant	1	7
Telecomn	6	167
Textile	6	4
Consultancy	20	64
Others	19	51

Appendix IV

REGIONWISE DISTRIBUTION OF PROJECT CONTACTS WON IN 1987

Region	No.	Value (Rs. Crores)
South Asia	8	22
South East Asia, Far East and Pacific	10	122
West Asia	23	214
North Africa	4	20
Sub-Sahara Africa	10	54
Americas and Europe	16	22
Grand Total	70	454

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BOOK REVIEWS

BOVINE ECONOMY IN INDIA

By A. VAIDYANATHAN, Oxford and IBH Publishing Co., Pvt., Ltd., New Delhi and Centre for Development Studies, Trivandrum, 1988; pp. iv+209; Price Rs. 96.

Reviewed by S. RAJENDRAN, Institute for Social and Economic Change, Bangalore 560072

In spite of a mushroom growth of studies on agriculture in recent years, studies on livestock economy are scanty particularly on bovine economics. And, hence it remains unexploited on the academic ground. In recent days, it is realised that this sector is one of the key sectors for the development of rural economy. An evaluation of the implications of bovine economy—in developing countries—is necessary to have an integrated agricultural and rural development.

Draught animal power and its response to agroenvironment conditions, importance of milch animals and their choice in relation to feed availability, urbanisation etc. are some of the key issues which have to be discussed for a thorough understanding of bovine economics. As far as the social science literature is concerned, the study by Vaidyanathan is the first and pioneering attempt which has addressed to these issues in Indian context.

The author started his work with the following propositions. First, the draught animal power is an important source of farm power in Indian agriculture. Secondly, in India, cows are reared mainly to beget male calves and incidentally for milk. The last one is that the cow population is determined by the draught animals (mainly bullocks) and the availability of feed.

The book has been divided into five chapters which as usual starts with an introduction. It presents a number of tables for major states as well as districts (wherever needed) for two decades i.e., 1951–1972. A number of references have been quoted in appropriate places to support the above stated propositions. As mentioned by the author himself in the preface, he has raised a number of issues which have been discussed by him in his earlier studies. Indeed, it adds merit to this study. The author has taken the data from Livestock Census, NSS, FMS and some research studies. The author has not only interpreted the large quantum of data but also has done a considerable econometric analysis.

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In the second chapter, the factors influencing the rearing of draught animals and their utilisation in different farm sizes have been analysed in detail. The author describes draught animals as an "energy gate" in Indian agriculture as called by Marvin Harris due to their crucial role during peak agricultural periods.

The study reveals that the size of the land holding and the relative costs of the animals are the key factors which determine the number and kind of draught animals holding. "The smaller the holding... the smaller will be the number of animals" and "... farmer's animal holding is likely to be influenced by relative costs and benefits of different categories of animals" (P. 32). Further it states that agro-climatic factors, especially rainfall and the quantum of mechanical power used in agriculture also influence the draught animal holding.

This study has brought out an interesting result that the agro-climatic condition greatly influences the species composition of draught animals. For instance; it argues that even though male bovines are extensively used in agriculture, the he-buffaloes' density in paddy tracts is relatively high.

The regression analysis shows that there is a positive relation between draught animal stock and total mechanical power (both tractors and pumpsets). But after the exclusion of pumpsets the relationship seems to be weak. This is mainly, as explained by the author, due to the fact that the pumpsets lead to an increase in the demand for draught animals as a result of the increase in irrigation intensity as well as cropping intensity. However, the author is not convinced by this explanation alone (P. 45) and seeks to examine this more rigorously in a detailed manner.

Regarding the draught animal power use, this study finds that there is a positive relationship between farm size and animal power use. Data on draught animal power use (per annum) has some inconsistencies. For instance, though column 15 in table 2.11 and in column 5 in table 2.13 pertain to the same variable the figures for some districts differ.

In third chapter, factors which determine the number of adult female bovines, the relative importance and their productivity in terms of calves and milk have been analysed with the help of a regression model. The regression estimates at the district and state level (cross sections) show that the requirement of breeding cows (per unit land area) tend to be high in regions with high bullock densities and also in those regions where the demand for young male stock relative to the size of the bullock herd is high. Further, it reveals that higher the calving rate and/or the probability of survival of male calves to adulthood, the smaller is the number of breeding cows per hectare (P. 73).

The relative merits of the different milch bovines (cows and buffaloes) have been examined in relation to feed intake (both total digestible nutrients (TDN) and digestible crude protein (DCP)) and average daily milk yield. An economic analysis in this respect reveals that buffalo is

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the superior animal which yields more milk than cow. Moreover, the big farmers are holding costlier milch bovines and the milk yield is high when compared with small farmers' milch animals. For this the author argues that the small farmers are unable to invest more on high yielding milch animals since capital is a major constraint for them. Secondly, the fodder and feeds available in plenty in big farms which is also a major factor for higher milk yield. Although demand analysis for milk consumption is not directly related to this study, it provides some insights to understand the determinants of milch animals. Here the level of per capita milk consumption has a positive relation with buffalo population than cow population (P. 87).

Changing pattern of the bovine species and factors influencing them have been dealt in chapter four. Fluctuations in the density of work animal as well as milk animals have been studied for the period 1951–72 for 15 major states. An analysis on the relationship between important variables like net sown and irrigated area which are likely to influence the draught animals have been examined in detail. Last part of this chapter is devoted to analyse the changes in feed supply in relation to changes in total bovines.

The study reveals that the density of draught animal population in Kerala is decreasing. The reason for this, as explained by the author, is that, perennial crops are (like tapioca) being cultivated more in Kerala and these crops do not require animal power. This raises a question: Don't these crops require animal labour? Even tapioca though it is an annual crop, it does require animal labour for ploughing—which has to be done repeatedly to make the soil very loose—for lifting water and finally for transporting the harvested tapioca which is more essential. Thus, the justification given by the author does not look convincing.

Further, the density of draught animal is decreasing in some of the districts in South Indian states (table 4.3). The author argues that widespread use of pumpsets displaced the draught animals. Hence, the requirement of animal power for water lifting decreases and consequently the density of draught animals declines (P. 115).

On the contrary, an increase in irrigation intensity (as a result of the pumpsets) would increase the cropping intensity. Consequently, the requirement of draught animal power would increase for land preparation, ploughing, threshing and so on. Moreover, the table 4.1 reveals that the density of draught animal population in South India is increasing from 1951–72 but marginally. It is contradictory to the table 4.4 and it supports the former argument.

In the last part of this chapter, attention has been paid to analyse the factors influencing milk production during 1961–72. It has also been focussed to see how the changes in price of meat, fish and oil cake affects the production and the price of milk.

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The last chapter of the book provides summary and conclusions of of the study. On the basis of the analysis, the study makes some policy recommendations for the future planning of the bovine economy.

Before concluding this I would like to point out that the data have not been carefully checked. For instance, regarding the figures on average daily milk yield (ADMY) of cow and buffalo differ from one table to another. Column 9 in table 3.4 differs from column 2 in table 4.11 for some states though the data have been taken from the same source. Likewise the ADMY for buffalo differs from table 3.13 to table 4.11 for the same time period. (Here also the data have been taken from the same source). In some places the references have not been checked carefully. The evaluation of various livestock development programmes—like Intensive Cattle Development Project, Key Village Schemes, cross-breeding programmes etc., which are in operation would have definitely enhanced the value of the book. But unfortunately, there is no reference about these programmes.

However, it does not mean that the work is incomplete and has limited value. This is a passionate, witty and useful book. Large amount of material has been coherently organised and ably analysed. The work shows the author's vast field experience in agricultural economics as well as in livestock economics. This book is no doubt a master piece which is not only articulative but also stimulative one.

INDUSTRIAL GROWTH AND PROTECTION IN INDIA

By SUNIL BARAN RAY, Chugh Publishers, Allahabad, India, 1988; pp. 248–1200.

Reviewed by: RAMESHWAR TANDON, Institute for Social & Economic Change, Bangalore–560072

Do tariffs matter, should more reliance be placed on tariffs or subsidies? This well-researched study by a young researcher from NIRD, Hyderabad explores these issues in depth with micro-level study of electric motor industry, starch industry and safety match industry:

Looking back at the Indian experience since 1950s, we can say that import substitution policy was pursued vigorously with the hope that heavy industry growth will help process of industrialization and also help in saving foreign exchange. This study reveals that both electric motor industry and starch industry were able to substitute imports signi-

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ficantly, but it does not necessarily follow that domestic industry becomes self-reliant, with less dependence on foreign inputs. This raises several complicated issues on the development strategy during the 1950s and 60s. Really the need for protection of domestic industries from foreign competition was strongly underlined by several thinkers like Prof. D. R. Gadgil, Justice Ranade, Prof. R. C. Dutta, etc. Over the years various elements of trade regime have undergone various changes, though major emphasis was laid on import control measures. Hence, the criteria for protection laid down by second fiscal commission have lost their importance now.

While the non-price measures like quantitative restrictions were limited during the mid-1950s, when a shift in the investment pattern to manufacturing industry and heavy industry required industrial licencing policy. In this study, attempt is made to identify the extent of protection, industry enjoys in terms of the effects of protective instruments of gross value of output (or total revenue of industry).

It is also necessary to probe poor 'backward' linkages, along with growth of protected industry like electric motor where the extent of dependence on imports did not decrease significantly. It seems that the government policy on capacity growth had something to do with the emergence of monopoly or oligopoly. While in this industry, capacity utilization was more than 60 p.c., but small or medium scale firms remained at the same level; perhaps due to raw material bottleneck. But over several years, the industry could achieve significant import substitution, though less importance was given to employment of wage earners. It was also revealed that the investment of capital made per wage earner is more than that per unit of salaried employee.

We could have also argued that the policy of protection to agro based industries could be used to obviate the loss of gains due to adverse terms of trade for agriculture. It is shown here that in case of starch industry, dependence on foreign sources was reduced significantly as the raw material constraint was not very effective here.

But the case of match industry is quite different. While 30 years of protection helped vigorous growth of industry in mechanised and cottage sector, it is also true that foreign competition was reduced heavily over the years. Perhaps government encouraged match making by WIMCO in mechanised sector and the idea of helping cottage sector was given up. The dependence on foreign inputs was reduced only later when monopoly position of WIMCO was reduced by giving sectoral protection to domestic units. Hence it is clear that growth of output in non-WIMCO sector was very high compared to WIMCO sector, in each year during the period 1946–78: The effectiveness of government support to cottage sector was also highlighted in that the rate of growth of sales is same as that of output. When sectoral protection was given to non-WIMCO

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sector, with a view to eliminate product concentration, the nature of dependence also changed. We cannot rule out the possibility of dominant foreign firm taking various measures (as in case of WIMCO) to crush domestic sector sellers. Hence only when the government provided differential protection to domestic sector, it became more competitive. Really productivity may be higher in a situation of monopoly in the home market, but it would be higher to the extent it supports domestic demand.

Still it is rather difficult to identify causal relationships between instruments of trade regime and performance of the industry. This study reveals that the influence of subsidy is more than that of tariff on all the activities of electric motor industry, though tariffs also played crucial role in the growth of this industry. So also in the case of agro-based industry like starch industry, the role of tariffs was very important: In case of electric motor industry, it was found that the subsidy played more important role for the type of growth that was observed in the period of protection. Hence, the tariff-subsidy instruments acted as complementary to each other in protecting the domestic industry, e.g. electric motor and match industry: As for their contribution to exports, it was found that the electric motor industry performed much better than other industries. While the foreign market for the starch producer in the early 1970s was not as favourable as it was in the early 1960s, but in case of safety match industry, small scale sector is main exporter and the contribution of the WIMCO sector to exports was negligible.

ENTREPRENEURSHIP DEVELOPMENT PROGRAMME FOR EX-SERVICEMEN

Published by Shaikh Mohamedally Allabux Urban Banking Development Institute, Bombay, 1988; pp. 190.

Reviewed by RAMESHWAR TANDON, Institute for Social & Economic Change, Bangalore 560072

This innovative monograph provides very useful guidelines for ex-servicemen entrepreneurs. As the Director of the Institute A. Hasib underlines a revolution has taken place in Indian banking during the last two decades and now loans are freely available to small borrowers. Also it is increasingly realised that more important factor for success of loan operations is the man behind the project.

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While there are misconceptions about a successful entrepreneur, Dr. V. G. Patel refers to several important entrepreneurial traits, e.g. achievement motivation, inclination and ability to take risk, capability to take initiatives, problem solving attitude, hopeful about future and orientation about planning.

Mr A Hasib cautions that we have still to achieve a break through in accelerating industrial production. Now it is widely recognised that savings and investment are crucial for growth of economy. The human factor plays a leading role. Due to significant branch expansion programme and other innovative schemes, the spread of banking in rural and semi-urban areas has been very rapid indeed. As a result, proportion of bank credit going to priority sectors is now as high as 43 p.c.

While self-employment on a large scale can be created with the help of local material and manpower, the "area development programme" has been a partial success only. Moreover risk is also there in financing new entrepreneur who has yet to prove his ability. For helping small entrepreneur, several agencies are doing useful job, e.g. SISIs, DICs, Consultancy Organisation. It is just possible that potential entrepreneur is not fully aware of market conditions, of raw materials, of finished goods, government policies about permissions to be taken and concessions available etc.

As N. P. Singh suggests, creativity is very much attached to an entrepreneur who is always looking forward to transform new ideas into reality.

Dr. Vinod Gupta looks at the project selection problem, as the old saying goes that well begun is half done. Moreover several small units become sick, just because before starting the unit, no thought is given whether there is any chance for success of the product selected. While there is a list of 800 items which are reserved for production in small scale sector, still it does not eliminate competition. One can also think of technology-oriented items, where important thing is to make good product acceptable to discriminating customers.

Prof. P. J. Louis in his paper underlines two tenets of marketing: Know your market and know your product. From these follow what the entrepreneur needs to know for managing SSI's marketing function. Really marketing covers pre-selling (product development, market research, marketing and plan formulation), selling (sales preposition, negotiation, closing sales) and post-selling activities (after sale service).

Another important marketing decision relates to pricing the product, since a sensible pricing policy helps in profit generation. Here it is also important to decide one's marketing objectives, e.g. market penetration, market skimming, early cash recovery, satisfying and product-lines promotion objectives. Three methods of pricing the product are: cost-oriented pricing, demand oriented pricing and competition-oriented pricing. More-

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over entrepreneur also has to decide how product moves from factory to the consumer and for obvious reasons chices are rather limited here.

In the third part, focus is on financial analysis. Rashid Jilani analyses bank finance for small scale industries. Due to efforts of various government agencies, there has been phenomenal growth in the small-scale sector due to several factors: (i) over five thousand products are manufactured by small scale industries, (ii) of total industrial production, 50 p.c. is contributed by village and small sector and 33 p.c. by modern small-scale units, (iii) about 96 lakh persons were employed by small-scale units in 1985–86, (iv) small sector contributes 40 p.c. to total exports and to exports of marine products and ready made garments its contribution is over 90 p.c. of exports, (v) small-scale units account for 5 p.c. of total fixed capital of all factories, provide employment to 35 p.c. of total employment provided by factory sector, hold a share of 22 p.c. of total output and 17 p.c. of value-added by manufacture. As per government projections by the end of seventh plan, the value of production from this sector is expected to increase to Rs. 802 billion, employment to 11.9 million and exports to Rs. 41 billion.

In the last paper, Institute faculty provides several tips with a view to understand the financial statements ratio analysis and assessment of working capital etc.

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TABLE 1

POPULATION AREA, AND POPULATION DENSITY (1986)

Countries	Population					Area					Density (A/B) 1986 (Population per km) (1000 acres)	
	Mid-year estimates (A) 1986		Forecast for year 2000		increase from 1970 to 1986 %	Total area (B) 1984		Land use (%)				
	(millions)	%	(millions)	%		1000 km	%	Agricultural Area	Forests and woodland	Other area		
U.S.A.	241.60	5.0	263.83	4.3	17.8	9,373	7.0	46.1	28.3	25.6	26	(10)
Japan	**121.49**	**2.5**	**129.28**	**2.1**	**17.5**	**378**	**0.3**	**14.6**	**67.0**	**18.4**	**321**	**(130)**
Germany, FR	61.05	1.3	58.82	1.0	0.6	249	0.2	48.4	29.5	22.1	245	(99)
Italy	57.22	1.2	59.11	1.0	6.3	301	0.2	57.0	21.3	21.7	190	(77)
U.K.	56.62[a]	1.2	55.21	0.9	1.8[c]	245	0.2	76.2	9.2	14.6	231	(94)
France	55.39	1.1	56.25	0.9	9.1	547	0.4	57.0	26.7	16.3	101	(41)
Canada	25.61	0.5	31.50	0.5	20.2	9,976	7.4	7.1	32.7	60.2	3	(1)
EC[b]	322.11[a]	6.7	329.17	5.4	6.2[c]	2,254	1.7	60.2	23.9	15.9	143	(58)
U.S.S.R.	278.62[a]	5.8	310.24	5.1	14.8[c]	22,402	16.7	27.1	41.6	31.3	12	(5)
China	1,059.52[a]	21.9	1,257.30	20.6	27.5[c]	9,597	7.2	40.3	14.1	45.6	110	(45)
World total	4,837.00[a]	100.0	6,115.51	100.0	31.0[c]	133,928	100.0	34.5	30.5	35.0	36	(15)

Source: UN, Monthly Bulletin of Statistics, Demographic Year Book, 1985; F.A.O. Production Year Book, 1985.

[a]1985

[b]France, Germany F.R., Italy, U.K., Belgium, Netherlands, Luxembourg, Denmark, Ireland, Greece, Spaine and Portugal.

[c]From 1970–1985.

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TABLE 2

JAPAN'S POPULATION BY AGE AND SEX (1986)

Age Groups	Total (1,000)	Male (1,000)	Female (1,000)
0–4	7,314	3,747	3,567
5–9	8,218	4,212	4,006
10–14	9,902	5,076	4,826
15–19	9,511	4,877	4,634
20–24	8,096	4,118	3,979
25–29	7,776	3,923	3,844
30–34	8,625	4,345	4,280
35–39	11,315	5,690	5,625
40–44	8,684	4,332	4,352
45–49	8,401	4,174	4,227
50–54	8,066	3,993	4,073
55–59	7,171	3,505	3,666
60–64	5,731	2,590	3,141
65–	12,870	5,223	7,647
Total	121,672	59,805	61,867

Source: Management and coordination Agency, Japan.

TABLE 3

EXPECTATION OF LIFE AT BIRTH

	Year or Period	Male (Years)	Female (Years)
Japan	1960	65.32	70.19
	1970	69.31	74.66
	1986	**75.23**	**80.93**
Iceland	1983–84	73.96	80.20
Sweden	1984	73.84	79.89
Norway	1982–1983	72.69	79.54
Australia	1984	72.59	79.09
U.S.A.[a]	1983	71.60	78.80
France	1982	70.73	78.85
U:K.[b]	1982–1984	71.60	77.60
Germany, FR	1982–1984	70.84	77.47
U.S.S.R.	1975–1980	65.00	74.30
Korea, Rep. of	1980–1985	62.70	66.60

[a]White only.
[b]England and Wales only.
Source: Ministry of Health and Welfare, Japan UN; Demografic Yearbook, 1985.

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TABLE 4

GNP, GNP PER CAPITA (1985), AND GROWTH RATE OF GNP (1976–1985)[a]

Countries	GNP (Nominal)[b]		Annual Growth Rate (Real)	
	(US $ billion)	Per capita (US $)	1976–80	1981–85
U.S.A.	3,998	16,709	3.4%	2.4%
Japan	2,097[c]	17,244[c]	5.0	4.1[d]
Germany, F.R.	627	10,282	3.4	1.3
France	509	9,219	3.3	1.1
U.K.	459	8,114	1.5	2.0
Italy	356	6,224	3.8	0.9
Canada	346	13,639	3.9	2.6
Brazil	209[e]	1,579[e]	6.8	0.1[f]
India	188[e]	252[e]	3.4	5.1[f]
Mexico	171[e]	2,231[e]	6.7	1.3[f]
Spain	164	4,255	2.0	1.4
Australia	163	10,315	2.7	2.9
Netherlands	125	8,630	2.6	0.7
Sweden	100	12,006	1.3	1.8
Saudi Arabia	94	8,116	9.2	−1.5
Switzerland	93	14,552	1.7	1.3
Indonesia	86	529	7.9	4.0[g]
Korea, Rep. of	86	2,091	7.5	7.5
Belgium	79	7,987	3.0	0.6
Taiwan	60	3,125	10.6	6.5
Denmark	58	11,319	2.5	2.3
South Africa	54	1,680	2.6	1.0
Thailand	39	752	7.6	5.3
Hong Kong	34	6,315	12.3	5.8

[a]All figures used for U.S.A.; Japan: U.K. and Germany FR, are GNP based. All other countries are GDP based except France and Italy.
[b]US $ figures are calculated according to annual exchange rates of the IMF.
[c]1986 [d]1982–1986 [e]1984 [f]1981–1984 [g]1984–1985.

Source: Bank of Japan, *Comparative International Statistics*, 1987, Economic Planning Agency.

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TABLE 5

DEMOGRAPHIC AND ECONOMIC STATISTICS OF ASEAN AND OTHER ASIAN COUNTRIES (1986)

Countries	Estimates of Mid-Year Population (millions)	Area (1,000 km²)	Density (Population per km²)	GNP (1985) (at current prices) (US $ billion)	GNP (1985) (at current prices) Per Capita (US $)	Average Annual Growth Rate (Real) 1981–1985	International Reserves (US $ million)	Foreign Trade (US $ million) Exports (f.o.b)	Foreign Trade (US $ million) Imports (c.i.f.)
Japan	**121.49**	**378**	**321**	**1,330.0**	**11,014**	**4.0%**	**43,294**	**209,153**	**126,408**
China	1,059.52[b]	9,597	110	318.3[c]	310[c]	7.8[d]	11,994	31,050	42,620
Korea, Rep. of	41.57	98	424	86.2	2,091	7.5	3,315	35,710	32,742
Hong Kong	5.53	1.0	5,530	34.2	6,315	5.8	—	35,439	35,366
ASEAN[a]	**292.73**	**3,050**	**96**	**207.8**	**724**	—	**30,780**	**64,770**	**61,629**
Indonesia	166.94	1,905	88	86.5	529	4.0[e]	5,411	14,805	10,718
Philippines	55.00	300	183	32.8	603	−0.5	2,527	4,842	5,394
Thailand	52.09	514	102	38.6	752	5.3	3,776	8,753	9,176
Malaysia	16.11	330	49	31.2	2,007	5.1	6,127	13,875	10,829
Singapore	2.59	0.6	4,317	18.7[c]	7,413[c]	7.5[f]	12,939[b]	22,495	25,512

[a]Association of Southeast Asian Nations, Excludes Brunei.

[b]1985 [c]1984 [d]1986 [e]1984–1985 [f]1981–1984 [g]End of 1986 [h]Total reserves.

Source: Bank of Japan, *Comparative International Statistics* 1987, IMF, *International Financial Statistics & UN, Monthly Bulletin of Statistics*, July 1987.

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TABLE 6

INTERNATIONAL TRADE MATRIX (1985)[a]

(US $ million)

Exports to / Exports from	EC	U.S.A.	Germany F.R.	Japan	U.K.	France	Italy	Industrial Countries	Centrally Planned Economies	Other Countries	World total
E.C.	353,130	65,388	77,174	8,048	49,688	66,630	39,772	496,232	15,963	127,841	649,654
U.S.A.	48,995	—	9,050	22,631	11,273	6,096	4,625	129,648	2,913	75,526	213,144
Germany, F.R.	91,485	19,047	—	2,707	15,748	21,840	14,270	142,836	6,111	33,688	183,910
Japan	21,128	66,684	7,001	—	4,764	2,103	1,127	102,040	3,721	65,751	177,189
U.K.	49,317	15,122	11,531	1,313	—	9,974	4,469	77,843	1,371	21,637	101,249
France	52,481	8,432	14,633	1,188	8,033	—	10,680	69,540	2,722	25,004	101,674
Italy	38,169	9,697	12,767	929	5,515	11,093	—	55,520	2,339	20,215	79,020
Industrial Countries	484,518	211,914	111,635	43,859	82,268	80,896	50,921	901,129	30,935	300,018	1,257,900
Centrally[b] Planned Economies	20,722	841	6,245	1,742	1,644	3,060	3,460	29,573	—	19,276	48,905
Other Countries	127,631	100,643	25,931	67,326	16,235	20,863	25,079	313,042	22,820	148,172	508,179
World total	635,567	328,211	144,608	116,368	100,787	105,053	79,715	1,266,700	53,755	474,680	1,796,600

[a]Based on f.o.b. Customs Clearance Statistics.

[b]Excludes intra-Economies Trade.

Source: Bank of Japan, *Comparative International Statistics*, 1987.

TABLE 7

BALANCE OF TRADE OF SELECTED COUNTRIES (1978–1987)

(US $ million)

	Japan	U.S.A.[b]	Germany F.R.	France	U.K.	Italy	Canada	Australia	Brazil	Mexico	Korea, Rep. of
1978	20,531	−33,947	24,740	101	−2,965	2,912	4,184	92	−1,158	−1,745	−1,780
1979	−2,438	−27,536	16,830	−3,220	−7,207	−990	4,179	2,511	−2,717	−2,830	−4,395
1980	6,776	−25,500	8,720	−13,419	3,362	−16,943	8,001	1,369	−2,823	−2,830	−4,384
1981	20,358	−27,970	16,460	−9,970	7,170	−11,991	6,578	−2,324	1,185	−4,099	−3,628
1982	20,141	−36,450	25,030	−15,785	3,906	−8,952	14,991	−2,612	778	6,795	−2,594
1983	34,546	−67,080	21,370	−8,754	−1,312	−2,574	14,972	30	6,469	13,762	−1,763
1984	45,601	−112,510	21,940	−4,651	−5,851	−5,690	16,555	−884	13,086	12,941	−1,036
1985	61,601	−122,150	25,550	−4,532	−2,440	−6,164	13,173	−1,283	12,466	8,451	−19
1986	101,648	−144,340	55,950	−2,255	−12,144	5,115	8,078	−2,158	—	4,599	4,206
1987 II	25,038[c]	−39,530	16,440	−2,695	—	−1,933	1,812	130	—	2,445	1,528
III	23,585[c]	—	—	—	—	—	—	—	—	—	—
IV	24,468[c]	—	—	—	—	—	—	—	—	—	—

[a]Based on *Balance of Payments Monthly*.
[b]Excludes military grants, Based on *Economic Indicators*.
[c]Seasonally adjusted.
Source: IMF, *International Financial Statistics*, January 1988.

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TABLE 8

EXPORTS AND IMPORTS BY COMMODITY AND COUNTRY (1986)
(US $ million, customs clearance basis, exports f.o.b., Imports c.i.f.)

		Food stuffs	Raw Material	Fuels	Crude oil	Chemical Products	Machinery/ Transportation Equipments	Motor Vehicles	Other Industrial Products	Manufactured Goods
Japan	**Exports**	**1,477**	**1,606**	**627**	**0**	**9,329**	**146,366**	**54,196**	**47,664**	**203,359**
	Imports	**19,186**	**18,154**	**37,191**	**18,967**	**9,398**	**12,689**	**1,431**	**32,031**	**43,125**
U.S.A.	Exports[a]	20,072	18,338	8,154	117	22,198	95,422	18,676	31,247	148,867
	Imports[b]	26,599	11,931	39,806	24,168	15,540	166,425	70,313	111,815	293,780
Germany, F.R.	Exports	11,600	5,031	3,943	0.01	31,202	116,282	41,142	69,835	217,319
	Imports	21,807	12,915	21,914	7,702	17,686	50,450	12,144	59,787	127,923
France	Exports	18,410	4,639	3,291	0.2	18,763	41,392	13,498	34,011	92,166
	Imports	14,233	6,381	16,246	7,449	13,708	37,794	10,170	39,396	90,898
U.K.	Exports	8,029	2,999	12,727	9,225	14,205	37,153	5,796	28,660	80,018
	Imports	14,162	7,314	9,230	3,613	10,772	42,187	11.643	39,181	92,140
Italy	Exports	6,221	2,251	2,737	24	7,060	32,895	6,764	46,139	86,094
	Imports	13,932	9,351	17,433	8,341	11,001	24,661	7,620	21,704	57,366

[a]F.A.S. basis.
[b]Generally market value in the country of origin is reported.
Source: OECD, *Statistics of Foreign Trade.*

TABLE 9

JAPAN'S MERCHANDISE TRADE BY AREA (1975–1987)
(US $ million, custom clearance basis)

	Total Japanese Merchandise Trade			With U.S.A.			With EC[a]			With Middle East		
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance
1975	55,753	57,863	**—2,110**	11,149	11,608	**—459**	5,675[b]	3,371[b]	**2,304[b]**	6,075	16,477	**—10,402**
1976	67,225	64,799	**2,426**	15,690	11,809	**3,881**	7,234[b]	3,623[b]	**3,611[b]**	7,276	18,745	**—11.469**
1977	80,495	70,809	**9,686**	19,717	12,396	**7,321**	8,736[b]	4,195[b]	**4,541[b]**	8,884	20,505	**—11,621**
1978	97,543	79,343	**18,200**	24,915	14,790	**10,125**	11,105[b]	6,072[b]	**5,033[b]**	10,745	20,777	**—10,032**
1979	103,032	110,672	**—7,640**	26,403	20,431	**5,972**	12,685[b]	7,581[b]	**5,104[b]**	10,734	29,377	**—18,643**
1980	129,807	140,528	**—10,721**	31,367	24,408	**6,959**	16,650[b]	7,842[b]	**8,808[b]**	14,358	44,500	**—30,142**
1981	152,030	143,290	**8,740**	38,609	25,297	**13,312**	18,894[c]	8,552[c]	**10,342[c]**	17,732	42,670	**—24,938**
1982	138,831	131,931	**6,900**	36,330	24,179	**12,151**	17,064[c]	7,560[c]	**9,504[c]**	16,946	37,764	**—20,818**
1983	146,927	126,393	**20,534**	42,829	24,647	**18,182**	18,523[c]	8,120[c]	**10,403[c]**	17,160	33,796	**—16,636**
1984	170,114	136,503	**33,611**	59,937	26,862	**33,075**	19,405[c]	9,334[c]	**10,071[c]**	14,206	33,066	**—18,860**
1985	175,638	129,539	**46,099**	65,278	25,793	**39,485**	20,016[c]	8,893	**11,123[c]**	12,171	29,937	**—17,766**
1986	209,151	126,408	**82,743**	80,456	29,054	**51,402**	30,675	13,989	**16,686**	9,795	18,427	**—8,632**
1987	229,221	149,515	**79,706**	83,580	31,490	**52,090**	37,693	17,670	**20,023**	9,177	20,197	**—11,020**

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	With Southeast Asia			With Latin America			With Africa			With Centrally Planned Economies		
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance
1975	12,543	10,586	**1,957**	4,765	2,524	**2,241**	5,557	2,320	**3,237**	4,683	3,006	**1,677**
1976	14,047	13,411	**636**	5,013	2,465	**2,548**	5,889	2,076	**3,813**	4,679	2,846	**1,833**
1977	17,126	15,077	**2,049**	6,292	3,065	**3,227**	6,643	2,218	**4,515**	4,910	3,319	**1,591**
1978	23,102	17,294	**5,808**	6,621	3,047	**3,574**	6,331	2,217	**4,114**	6,650	3,862	**2,788**
1979	26,128	26,195	**−67**	6,655	4,517	**2,038**	5,231	3,205	**2,026**	7,383	5,392	**1,991**
1980	30,910	31,751	**−841**	8,917	5,700	**3,217**	8,016	4,465	**3,552**	9,155	6,669	**2,486**
1981	34,426	31,930	**2,496**	10,516	6,669	**3,847**	10,038	4,779	**5,259**	9,514	7,724	**1,790**
1982	31,873	29,985	**1,888**	9,086	6,268	**2,818**	6,930	3,740	**3,190**	8,401	7,430	**971**
1983	34,548	27,988	**6,560**	6,391	6,462	**−71**	6,006	3,272	**2,734**	8,930	7,004	**1,826**
1984	36,795	31,883	**4,912**	8,549	7,230	**1,319**	4,838	2,776	**2,062**	10,602	7,982	**2,620**
1985	33,248	30,264	**2,984**	8,486	6,242	**2,244**	3,539	2,896	**643**	16,190	8,480	**7,710**
1986	41,788	29,489	**12,299**	9,494	6,194	**3,300**	3,533	3,585	**−52**	14,064	8,232	**5,832**
1987	52,982	38,627	**14,355**	8,760	6,355	**2,405**	4,757	3,694	**1,063**	11,924	10,627	**1,297**

[a]Twelve countries, [b]Nine countries, [c]Ten countries.
Source: Japan Tariff Association, *The Summary Report, Trade of Japan.*

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TABLE 10

JAPAN'S LEADING TRADING PARTNERS (1985–1987)[a]

(US $ million except %)	Japan's Export to						Japan's Imports from					
	1985	1986	1987	1985	1986	1987	1985	1986	1987	1985	1986	1986
U.S.A.	65,278	80,456	**83,580**	37.2%	38.5%	36.5%	25,793	29,054	**31,490**	19.9%	23.0%	21.0%
EC	20,016	30,675	**37,693**	11.4	14.7	16.4	8,893	13,989	**16,670**	6.9	11.1	11.8
Korea, Rep. of	7,097	10,475	**13,229**	4.0	5.0	5.8	4,092	5,292	**8,075**	3.2	4.2	5.4
Germany, F.R.	6,938	10,477	**12,833**	4.0	5.0	5.6	2,928	4,298	**6,150**	2.3	3.4	4.1
Taiwan	5,025	7,852	**11,346**	2.9	3.8	4.9	3,386	4,691	**7,128**	2.6	3.7	4.8
China	12,477	9,856	**8,250**	7.1	4.7	3.6	6,483	5,652	**7,401**	5.0	4.5	5.0
Australia	5,379	5,227	**5,146**	3.1	2.5	2.2	7,452	6,980	**7,869**	5.8	5.5	5.3
Canada	4,520	5,526	**5,611**	2.6	2.6	2.4	4,773	4,895	**6,073**	3.7	3.9	4.1
U.K.	4,723	6,647	**8,400**	2.7	3.2	3.7	1,817	3,573	**3,057**	1.4	2.8	2.0
Indonesia	2,172	2,662	**2,990**	1.2	1.3	1.3	10,119	7,311	**8,427**	7.8	5.8	5.6
Saudi Arabia	3,890	2,762	**3,239**	2.2	1.3	1.4	10,245	5,205	**7,311**	7.9	4.1	4.9
Hong Kong	6,509	7,161	**8,872**	3.7	3.4	3.9	767	1,073	**1,561**	0.6	0.8	1.0
Singapore	3,860	4,577	**6,008**	2.2	2.2	2.6	1,594	1,463	**2,048**	1.2	1.2	1.4
Malaysia	2,168	1,708	**2,168**	1.2	0.8	0.9	4,330	3,846	**4,772**	3.3	3.0	3.2
France	2,083	3,152	**4,014**	1.2	1.5	1.8	1,324	1,855	**2,871**	1.0	1.5	1.9
United Arab Emirates	1,164	1,033	**1,118**	0.7	0.5	0.5	8,916	5,947	**5,408**	6.9	4.7	3.6

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Switzerland	1,161	1,887	**2,266**	0.7	0.9	1.0	1,758	2,571	**3,101**	1.4	2.0	2.1
U.S.S.R.	2,751	3,150	**2,563**	1.6	1.5	1.1	1,429	1,972	**2,352**	1.1	1.6	1.6
Netherlands	2,071	3,261	**4,071**	1.2	1.6	1.8	439	577	**757**	0.3	0.5	0.5
Thailand	2,030	2,031	**2,953**	1.2	1.0	1.3	1,027	1,391	**1,796**	0.8	1.1	1.2
Italy	1,117	1,723	**2,103**	0.6	0.8	0.9	1,050	1,459	**2,135**	0.8	1.2	1.4
South Africa	1,020	1,355	**1,863**	0.6	0.6	0.8	1,844	2,229	**2,259**	1.4	1.8	1.5
Belgium	1,477	2,198	**2,697**	0.8	1:1	1.2	482	677	**859**	0.4	0.5	0.6
India	1,596	2,099	**1,957**	0.9	1.0	0.9	1,189	1,297	**1,530**	0.9	1.0	1.0
Mexico	994	1,032	**1,389**	0.6	0.5	0.6	1,870	1,439	**1,625**	1.4	1.1	1.1
Brazil	615	973	**878**	0.4	0.5	0.4	1,840	1,875	**2,032**	1.4	1.5	1.4
Philippines	937	1,088	**1,415**	0.5	0.5	0.6	1,243	1,221	**1,353**	1.1	1.0	0.9
Kuwait	1,536	1,220	**857**	0.9	0.6	0.4	1,162	1,157	**1,796**	0.9	0.9	1.2
Sweden	1,094	1,438	**1,931**	0.6	0.7	0.8	441	575	**682**	0.3	0.5	0.5
World total	175,638	209,151	**229,221**	100.0	100.0	100.0	129,539	126,408	**149,515**	100.0	100.0	100.0

[a]In order of total value of exports plus imports in 1987.
Source: Japan Tariff Association, The Summary Report: *Trade of Japan.*

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TABLE 11

JAPAN'S INTERNATIONAL BALANCE OF PAYMENTS—IMF BASIS (1978–1987)

(US $ million)

	Current Balance						Long-term Capital	Basic Balance	Short-term Capital	Errors and omissions	Overall] Balance
	Current Balance	Trade Balance			Services	Transfer					
		Exports	Imports	Balance							
1978	**11,852**	96,978	76,447	20,531	−7,772	−907	−16,299	−4,447	1,563	587	**−2,297**
1979	**−13,853**	105,059	107,497	−2,438	−10,142	−1,273	−10,323	−24,176	4,888	337	**−18,951**
1980	**−7,012**	134,942	128,176	6,766	−12,199	−1,579	2,698	−4,314	4,763	−829	**−380**
1981	**5,934**	149,592	129,234	20,358	−12,876	−1,548	−14,934	−9,000	−909	2,050	**−7,859**
1982	**9,135**	135,993	115,852	20,141	−9,535	−1,471	−11,876	−2,741	−3,156	3,909	**−1,988**
1983	**24,232**	150,740	116,194	34,546	−8,784	−1,530	−20,797	3,435	−1,338	318	**2,415**
1984	**37,015**	167,858	122,257	45,601	−7,064	−1,522	−54,197	−17,182	−2,799	5,437	**−14,544**
1985	**55,019**	180,664	119,063	61,601	−4,745	−1,837	−73,177	−18,158	−1,475	4,034	**−15,599**
1986	**94,139**	211,293	109,645	101,648	−5,135	−2,374	−144,680	−50,541	899	5,698	**−43,944**
1987 II	**22,762**	58,823	30,785	25,038	−1,601	−675	−44,365	−21,603	6,460	686	**−14,457**
III	**21,189**	56,600	33,015	23,585	−1,757	−639	−22,023	−834	9,833	−789	**8,210**
IV (P)	**21,775**	61,494	37,026	24,468	−1,393	−1,300	−38,530	−16,755	6,160	−7,831	**−18,426**

Source: Bank of Japan, *Balance of Payments Monthly*, December 1987; Ministry of Finance, Japan.

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TABLE 12

INTERNATIONAL LIQUIDITIES (End of 1986)

(US $ million)

	Total	Gold[a]	S.D.Rs.[b]	IMF Position	Foreign Exchange
Germany F.R.	55,809	4,075	2,020	3,848	45,866
U.S.A.[c]	48,427	10,098[f]	8,395	11,730	17,328
Japan[d]	**42,239**	**1,037**	**2,218**	**2,382**	**37,657**
France	34,957	3,504	1,290	1,736	28,428
Switzerland	29,118	7,332	3[f]	452	21,334
Italy	22,825	2,854	587	1,268	18,115
U.K.[e]	21,923	814	1,553	1,983	14,886
Canada	4,096	845	247	686	2,318
EC	151,460[f]	16,316	7,413	11,233	145,594
Oil Exporting countries	63,566	1,874	2,149	13,197	46,348
Free World, total	**462,607[f]**	**35,683[f]**	**23,276**	**42,856**	**365,191[f]**

[a]One troy ounce of gold is evaluated as 35 SDRs.
[b]Special Drawing rights, 1 SDR=US $ 0.8524.
[c]Based on Federal Reserve Bulletin.
[d]Based on data of Ministry of Finance, Japan.
[e]Based on *Financial Statistics.*
[f]End of 1985.
Source: IMF, *International Financial Statistics*: Bank of Japan.

TABLE 13

U.S. LEVELS OF MANUFACTURING SECTOR LABOR PRODUCTIVITY COMPARED WITH JAPAN[a]

(Japan, each Year=100)	1970	1978	1981
Iron and Steel	143	86	63
Automobiles	223	120	87
Electrical Machinery	246	115	93
Chemicals	156	121	108
Precision Machinery	316	197	139
General Machinery	196	137	118
Textiles	194	144	138
Leather and Products	149	180	190
Pulp and Paper Products	169	193	165
Printing and Publishing	163	225	221
Foodstuffs	263	214	225
Apparels	207	241	272
Manufacturing, total	**204**	**148**	**131**

[a]Man-hour base.
Source: Japan Productivity Center.

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TABLE 14

DAYS LOST IN LABOR DISPUTES (1976–1986)[a]

(1,000 man-days)

	U.S.A.	Italy	U.K.	France	Japan[b]	Germany, F.R.
1976	37,859	25,378	3,284	5,011	3,224	534
1977	21,258	16,566	10,142	3,666	1,498	24
1978	23,774	10,177	9,405	2,200	1,353	4,281
1979	20,409	27,530	29,474	3,172	919	483
1980	20,844	16,457	11,964	1,511	998	128
1981	16,908	10,527	4,266	1,442	543	58
1982	9,061	18,563	5,313	2,257	535	15
1983	17,461	14,003	3,754	1,321	504	41
1984	8,499	8,703	27,135	1,318	354	5,618
1985	7,079	3,831	6,402	727	257	35
1986	12,140	—	1,879	568	252	—

[a]Based on data from each country. Labour disputes as a rule involve protestation.
[b]Japanese figures include days of disputes including protestation and factory closure.
Source: Bank of Japan, *Comparative International Statistics, 1987.*

TABLE 15

UNEMPLOYMENT NUMBER AND RATE (1981–1987)

		Japan	U.S.A.	EC	Germany, F.R.	France	U.K.
Number (1,000)	1981	1,260	8,273	8,548	1,272	1,773	2,520
	1982	1,360	10,678	10,398	1,833	2,008	2,917
	1983	1,560	10,717	11,684	2,258	2,042	3,105
	1984	1,610	8,539	12,359	2,266	2,310	3,160
	1985	1,560	8,312	12,787	2,304	2,394	3,271
	1986	1,670	8,237	12,887	2,228	2,517	3,289
	1987 May	1,910[a]	7,546[a]	13,268[b]	2,239[a]	2,661[a]	2,954[a]
Rate (%)	1981	2.2	7.5	7.8	5.5	7.4	9.4
	1982	2.4	9.5	9.4	7.5	8.2	10.9
	1983	2.6	9.5	10.6	9.1	8.4	11.7
	1984	2.7	7.4	10.9	9.1	9.8	11.7
	1985	2.6	7.1	11.6	9.3	10.2	11.8
	1986	2.8	6.9	11.7	9.0	10.4	11.9
	1987 May	3.2[a]	6.2[a]	11.8[b]	8.9[a]	11.1[a]	10.6[a]

[a]Seasonally adjusted.
[b]Seasonally adjusted, March 1987.
Source: Bank of Japan, *Comparative International Statistics, 1987*; Ministry of Labour, Japan.

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